DENON

Ver. 2

Please refer to the MODIFICATION NOTICE.

SERVICE MANUAL

MODEL	JP	E3	E2	EK	EA	E1	E1K	E1C
DA-300USB		✓	✓					✓

D/A CONVERTER

- For purposes of improvement, specifications and design are subject to change without notice.
- Please use this service manual with referring to the operating instructions without fail.
- Some illustrations using in this service manual are slightly different from the actual set.

DENON

D&M Holdings Inc.

S0813-0V01DM/DG1402
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WARNING: Violators will be prosecuted to the maximum extent possible.

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ABOUT THIS MANUAL

Read the following information before using the service manual.

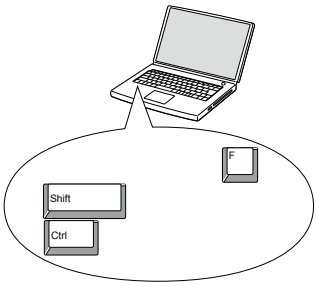
What you can do with this manual

Search for a Ref. No. (phrase) (Ctrl+Shift+F)

You can use the search function in Acrobat Reader to search for a Ref. No. in schematic diagrams, printed wiring board diagrams, block diagrams, and parts lists.

1.Press **Ctrl+Shift+F** on the keyboard.

- The Search window appears.



2.Enter the Ref. No. you want to search for in the Search window, and then click the **Search** button.

•A list of search results appears.

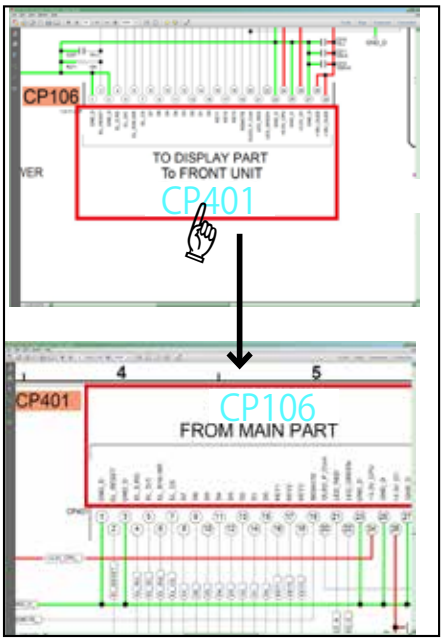
3.Click an item on the list.

• The screen jumps to the page for that item, and the search phrase is displayed.

Jump to the target of a schematic diagram connector

Click the Ref. No. of the target connector in the red box around a schematic diagram connector.

•The screen jumps to the target connector.



•Page magnification stays the same as before the jump.

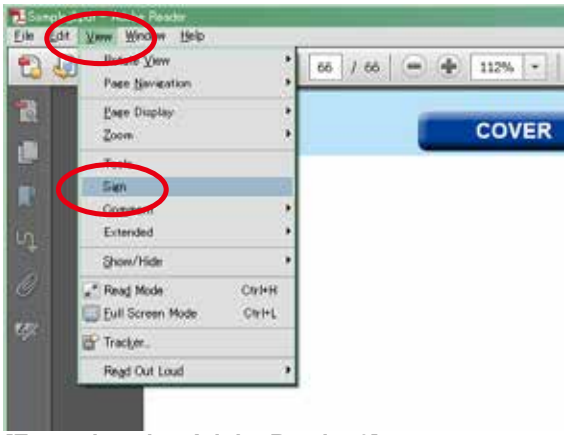
Using Adobe Reader (Windows version)

Add notes to this data (Sign)

The Sign function lets you add notes to the data in this manual.
Save the file once you have finished adding notes.

[Example using Adobe Reader X]
On the **"View"** menu, click **"Sign"**.

- The Sign pane appears.



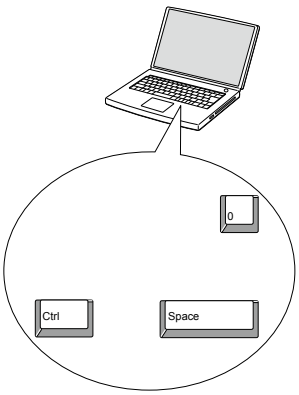
[Example using Adobe Reader 9]
On the **"Document"** menu, click **"Sign"**.

Magnify schematic / printed wiring board diagrams - 1

(Ctrl+Space, mouse operation)

Press **Ctrl+Space** on the keyboard and drag the mouse to select the area you want to view.

- The selected area is magnified.

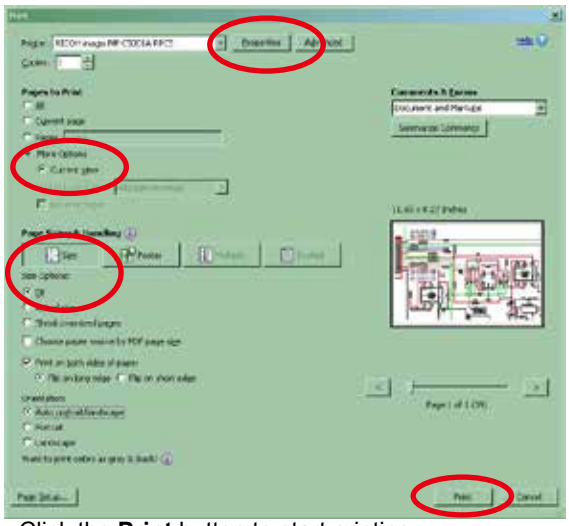


- When you want to move the area shown, hold down **Space** and drag the mouse.
- When you want to show a full page view, press **Ctrl+0** on the keyboard.

Print a magnified part of the manual

The Properties dialog box and functions will vary depending on your printer.

1. Drag the mouse to magnify the part you want to print.
2. On the **"File"** menu, click **"Print"**.
3. Configure the following settings in the Print dialog box.



4. Click the **Print** button to start printing.

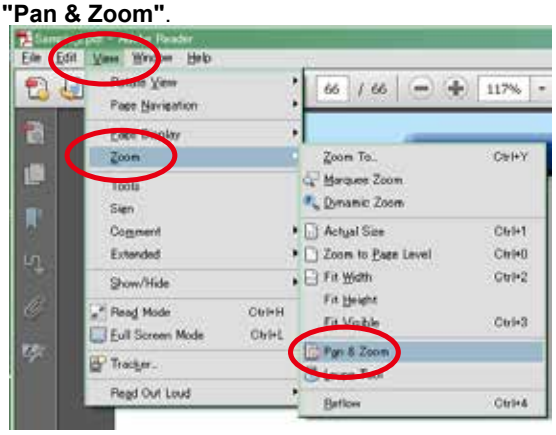
- **Properties**
  Click this button and check that the printer is set to a suitable paper size.
- **Page to print**
  Select the following checkbox.
  "More Options" : **"Current View"**
- **Page Sizing & Handling**
  Select the following checkbox.
  "Size" / **"Size Options"** : **"Fit"**

Magnify schematic / printed wiring board diagrams - 2

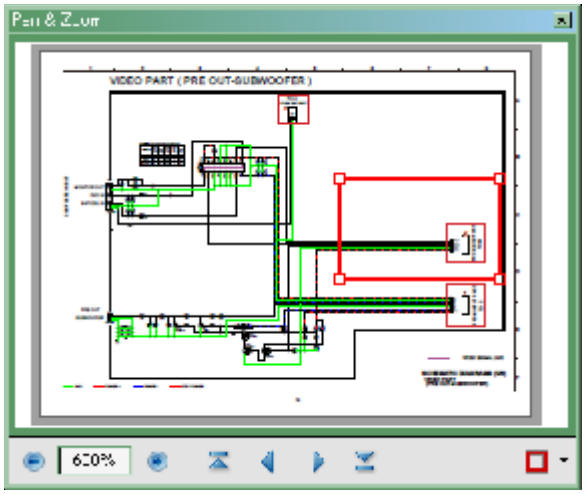
(Pan & Zoom function)

The Pan & Zoom function lets you see which part of a magnified diagram is being shown in a separate window.

[Example using Adobe Reader X]
On the **"View"** menu, point to **"Zoom"**, and then click **"Pan & Zoom"**.



- The Pan & Zoom window appears on the screen.



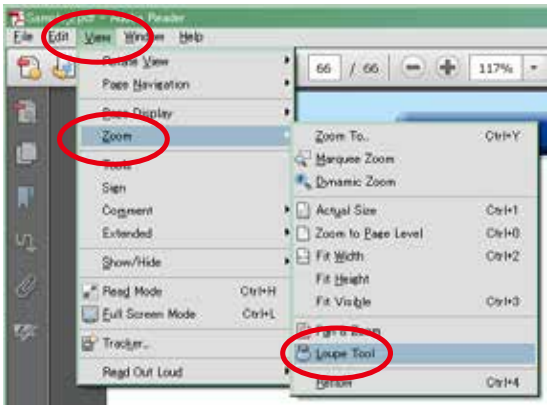
[Example using Adobe Reader 9]
On the **"Tools"** menu, point to **"Select & Zoom"**, and then click **"Pan & Zoom Window"**.

Magnify schematic / printed wiring board diagrams - 3

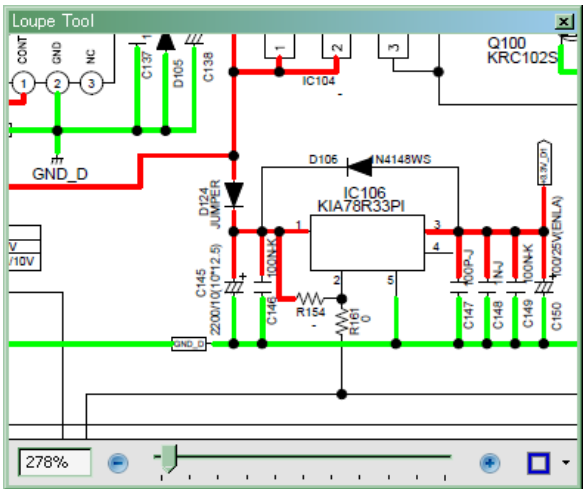
(Loupe Tool function)

The Loupe Tool function lets you magnify a specific part of a diagram in a separate window.

[Example using Adobe Reader X]
On the **"View"** menu, point to **"Zoom"**, and then click **"Loupe Tool"**.



- The Loupe Tool window appears on the screen.



[Example using Adobe Reader 9]
On the **"Tools"** menu, point to **"Select & Zoom"**, and then click **"Loupe Tool Window"**.

SAFETY PRECAUTIONS

The following items should be checked for continued protection of the customer and the service technician.

leakage current check

Before returning the set to the customer, be sure to carry out either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the set is defective.

Be sure to test for leakage current with the AC plug in both polarities, in addition, when the set's power is in each state (on, off and standby mode), if applicable.

CAUTION **Please heed the following cautions and instructions during servicing and inspection.**

◎ **Heed the cautions!**

Cautions which are delicate in particular for servicing are labeled on the cabinets, the parts and the chassis, etc. Be sure to heed these cautions and the cautions described in the handling instructions.

◎ **Cautions concerning electric shock!**

(1) An AC voltage is impressed on this set, so if you touch internal metal parts when the set is energized, you may get an electric shock. Avoid getting an electric shock, by using an isolating transformer and wearing gloves when servicing while the set is energized, or by unplugging the power cord when replacing parts, for example.

(2) There are high voltage parts inside. Handle with extra care when the set is energized.

◎ **Caution concerning disassembly and assembly!**

Through great care is taken when parts were manufactured from sheet metal, there may be burrs on the edges of parts. The burrs could cause injury if fingers are moved across them in some rare cases. Wear gloves to protect your hands.

◎ **Use only designated parts!**

The set's parts have specific safety properties (fire resistance, voltage resistance, etc.). Be sure to use parts which have the same properties for replacement. The burrs have the same properties. In particular, for the important safety parts that are indicated by the ⚠ mark on schematic diagrams and parts lists, be sure to use the designated parts.

◎ **Be sure to mount parts and arrange the wires as they were originally placed!**

For safety seasons, some parts use tapes, tubes or other insulating materials, and some parts are mounted away from the surface of printed circuit boards. Care is also taken with the positions of the wires by arranging them and using clamps to keep them away from heating and high voltage parts, so be sure to set everything back as it was originally placed.

◎ **Make a safety check after servicing!**

Check that all screws, parts and wires removed or disconnected when servicing have been put back in their original positions, check that no serviced parts have deteriorate the area around. Then make an insulation check on the external metal connectors and between the blades of the power plug, and otherwise check that safety is ensured.

(Insulation check procedure)

Unplug the power cord from the power outlet, disconnect the antenna, plugs, etc., and on the power. Using a 500V insulation resistance tester, check that the insulation resistance value between the inplug and the externally exposed metal parts (antenna terminal, headphones terminal, input terminal, etc.) is 1MΩ or greater. If it is less, the set must be inspected and repaired.

CAUTION **Concerning important safety parts**

Many of the electric and the structural parts used in the set have special safety properties. In most cases these properties are difficult to distinguish by sight, and the use of replacement parts with higher ratings (rated power and withstand voltage) does not necessarily guarantee that safety performance will be preserved. Parts with safety properties are indicated as shown below on the wiring diagrams and the parts list in this service manual. Be sure to replace them with the parts which have the designated part number.

(1) Schematic diagrams.....Indicated by the ⚠ mark.

(2) Parts lists.....Indicated by the ⚠ mark.

The use of parts other than the designated parts could cause electric shocks, fires or other dangerous situations.

NOTE FOR SCHEMATIC DIAGRAM

WARNING:

Parts indicated by the ⚠ mark have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:

Before returning the set to the customer, be sure to carry out either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the set is defective.

WARNING:

DO NOT return the set to the customer unless the problem is identified and remedied.

NOTICE:

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM / M=1,000,000 OHM

ALL CAPACITANCE VALUES ARE EXPRESSED IN MICRO FARAD, UNLESS OTHERWISE INDICATED. P INDICATES MICRO-MICRO FARAD. EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION. CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

NOTE FOR PARTS LIST

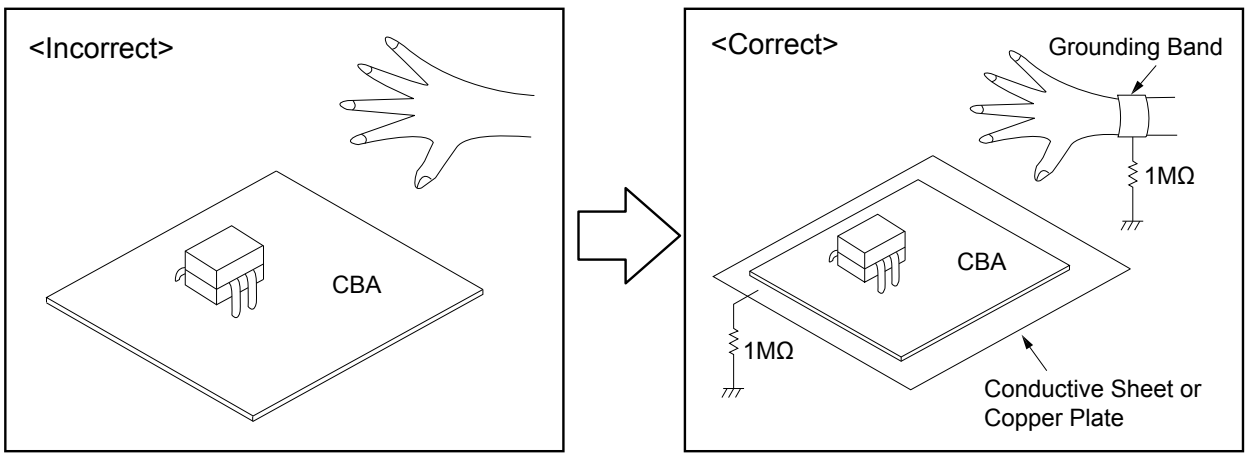
1. Parts indicated by "nsp" on this table cannot be supplied.
2. When ordering a part, make a clear distinction between "1" and "I" (i) to avoid mis-supplying.
3. A part ordered without specifying its part number can not be supplied.
4. Part indicated by " ★ " mark is not illustrated in the exploded view.

WARNING: Parts indicated by the ⚠ mark have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

INSTRUCTIONS FOR HANDLING SEMI-CONDUCTORS AND OPTICAL UNIT

Electrostatic breakdown of the semi-conductors or optical pickup may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

1. Ground for Human Body
   Be sure to wear a grounding band (1 MΩ) that is properly grounded to remove any static electricity that may be charged on the body.
2. Ground for Workbench
   Be sure to place a conductive sheet or copper plate with proper grounding (1 MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing



Personal notes:

TECHNICAL SPECIFICATIONS

■ Audio performance

	[DSD signal]	[PCM signal]
• **Analog output**		
Channels:	2 channels	2 channels
Playable frequency range:	2 Hz – 100 kHz	2 Hz – 96 kHz
Playable frequency response:	2 Hz – 50 kHz (–3 dB)	2 Hz – 20 kHz (±0.5 dB)
S/N:	112 dB (Audible range)	112 dB
Dynamic range:	105 dB (Audible range)	105 dB
Harmonic distortion:	0.0018 % (1 kHz, Audible range)	0.0018 % (1 kHz)
Output level:	2.0 V (10 kΩ/kohms)	2.0 V (10 kΩ/kohms)
Output Impedance:	300 Ω	300 Ω
Sampling frequency:	2.8224/5.6448 MHz	32/44.1/48/64/88.2/96/176.4/192 kHz

• **Digital input**

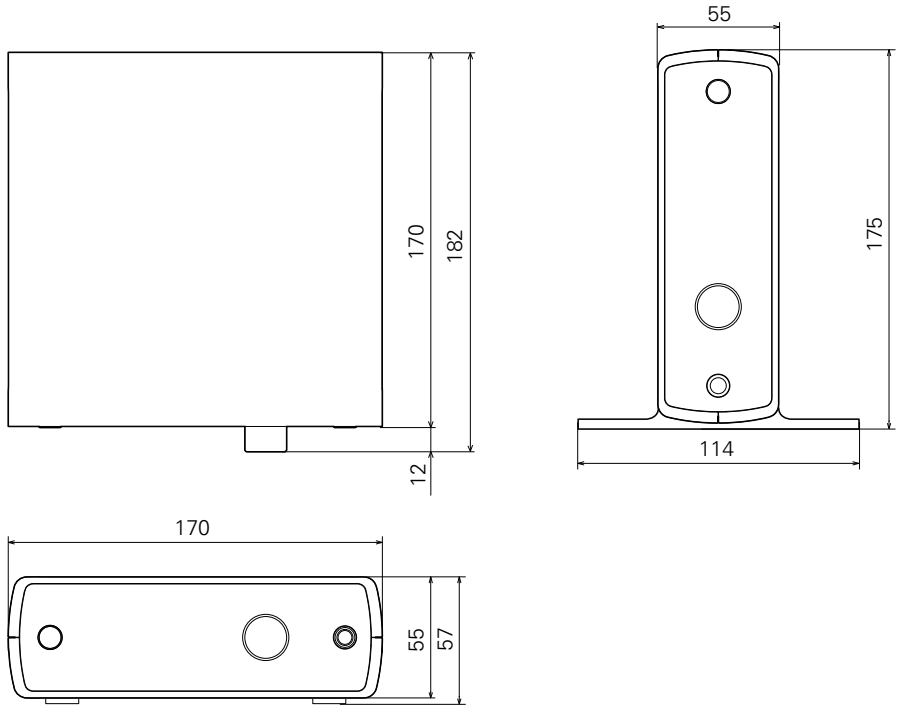
Format:	Digital audio interface (Linear PCM)
Coaxial:	0.5 Vp-p / 75 Ω/ohms
Optical:	–27 dBm or lator
Emission wavelength:	660 nm

■ General

AC adapter:	Input : 100 – 240 V, 50/60 Hz Output : DC 15 V, 1 A

DIMENSION

Unit : mm



Weight :1.5kg

PRECAUTIONS DURING SERVICE

Initializing This Unit

Initialize this unit if you have replaced the microprocessor, one of the parts around the microprocessor, or the digital PCB.
Initialization is done at the same time as the version display.

1. Hold down button "Power operation button" and connect the AC adapter plug to an inlet until.
2. Press and hold the "Power operation (⏻)" button until displaying version number on OLED.

> NOTE: •All user settings will be lost and the factory setting will be recovered after the set is initialized.
> So make sure to note down your setting beforehand for restoring after the initialization.

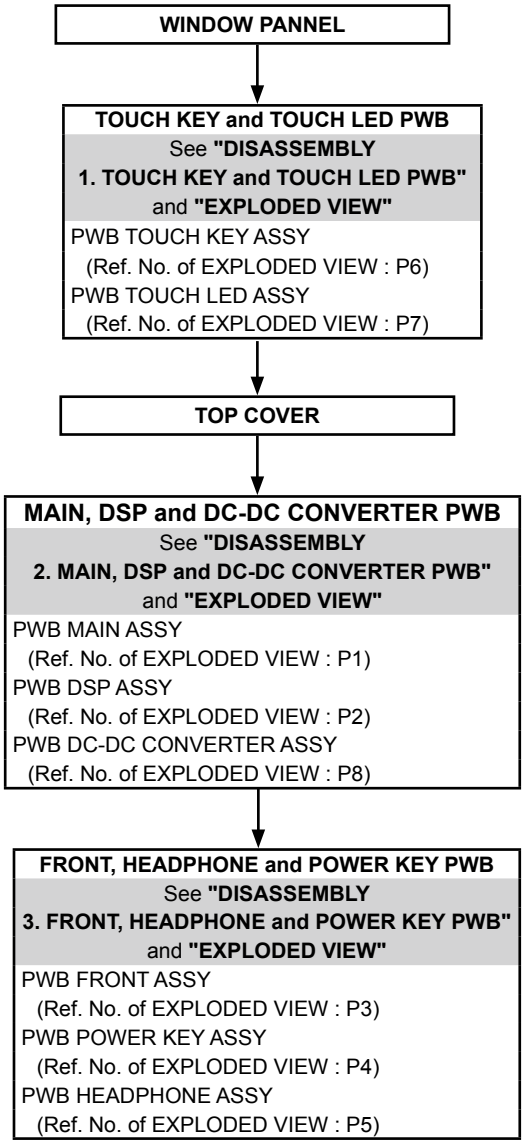
Service Jig

When you update the firmware , you can use the following JIG (RS232C to internal connector conversion adapter without 7P FFC kit).
Please order it from Denon Official Service Distributor in your region if necessary.

00DSPK-581 : WRITING KIT (without FFC) : 1
606050028012P : 7P FFC(1.0)L=240 : 1 △2
(Refer to 18 page.)

DISASSEMBLY

- Remove each part in the order of the arrows below.
- Reassemble removed parts in the reverse order.
- Read "Precautions During Work" before reassembling removed parts.
- If wire bundles are removed or moved during adjustment or part replacement, reshape the wires after completing the work. Failure to shape the wires correctly may cause problems such as noise.


WINDOW PANNEL
TOUCH KEY and TOUCH LED PWB
See "DISASSEMBLY 1. TOUCH KEY and TOUCH LED PWB" and "EXPLODED VIEW"
PWB TOUCH KEY ASSY
(Ref. No. of EXPLODED VIEW : P6)
PWB TOUCH LED ASSY
(Ref. No. of EXPLODED VIEW : P7)
TOP COVER
MAIN, DSP and DC-DC CONVERTER PWB
See "DISASSEMBLY 2. MAIN, DSP and DC-DC CONVERTER PWB" and "EXPLODED VIEW"
PWB MAIN ASSY
(Ref. No. of EXPLODED VIEW : P1)
PWB DSP ASSY
(Ref. No. of EXPLODED VIEW : P2)
PWB DC-DC CONVERTER ASSY
(Ref. No. of EXPLODED VIEW : P8)
FRONT, HEADPHONE and POWER KEY PWB
See "DISASSEMBLY 3. FRONT, HEADPHONE and POWER KEY PWB" and "EXPLODED VIEW"
PWB FRONT ASSY
(Ref. No. of EXPLODED VIEW : P3)
PWB POWER KEY ASSY
(Ref. No. of EXPLODED VIEW : P4)
PWB HEADPHONE ASSY
(Ref. No. of EXPLODED VIEW : P5)

Explanatory Photos for“ DISASSEMBLY”

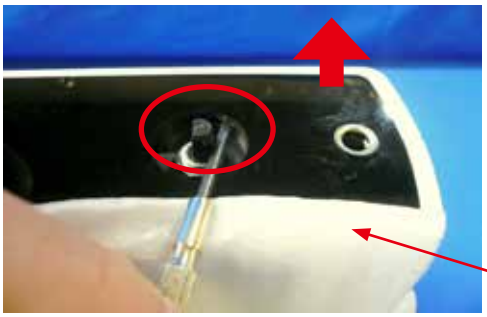
- The angles from which the photos are taken are shown by “Photo angle: A, B, C, D“ .
- See the diagram below about the shooting direction of each photograph.
- Photographs with no shooting direction indicated were taken from the top of the set.

The viewpoint of each photograph
(Shooting direction)

1. TOUCH KEY and TOUCH LED PWB

Proceeding : WINDOW PANEL → TOUCH KEY and TOUCH LED PWB

(1) Remove the H/P volume knob.
Put the driver in the groove on the upper side of the Volume. Remove the window panel.

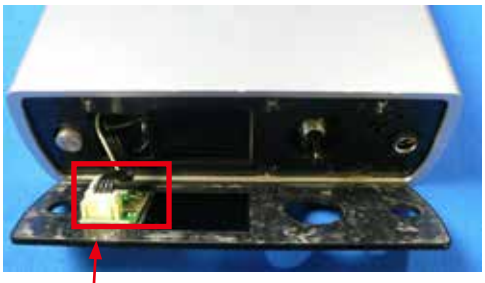


Replase

Do not reuse window panel after disassembly.

Shooting direction: A (Front side)

Lay the cloth.(Protected this unit)



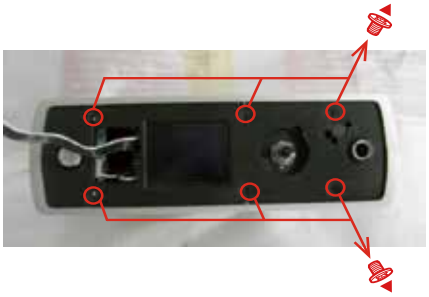
TOUCH LED and TOUCH KEY PWB.

2. MAIN, DSP and DC-DC CONVERTER PWB

Proceeding : WINDOW PANEL → TOP COVER → **MAIN, DSP and DC-DC CONVERTER PWB**

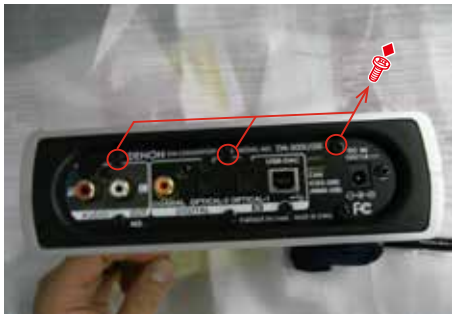
(1) Remove the window panel and remove the screws.

Shooting direction: A (Front side)



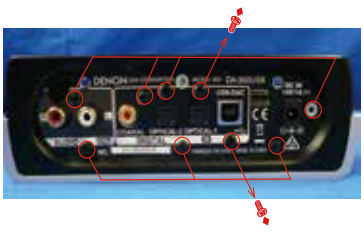
(2) Remove the screws.

Shooting direction: B (Rear side)

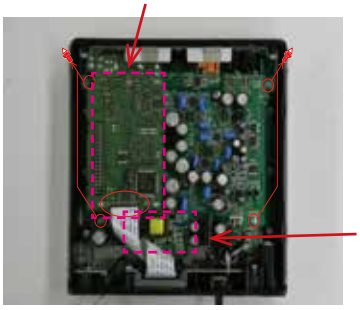


(3) Remove the hook for places of the left and right side.
Prepare a thin, blunt plate.(like tweezers...)

(4)Remove the screws. Remove the FFC



DSP PWB

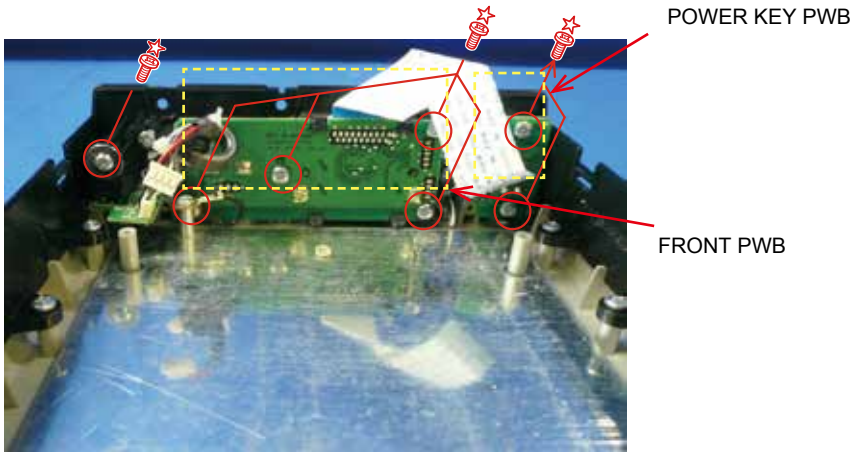


DC-DC CONVERTER PWB

3. FRONT, HEADPHONE AND POWER PWB

Proceeding : WINDOW PANEL → TOP COVER → MAIN, DSP and DC-DC CONVERTER PWB → FRONT, HEADPHONE AND POWER KEY PWB

(1) Remove the nut of H/P volume (Front side).
(2) Remove the screws.
(3) Disconnect the connector wires and FFC. Remove the screws.

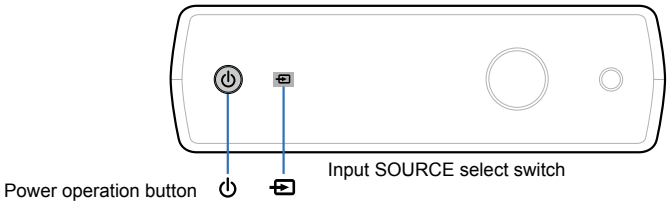


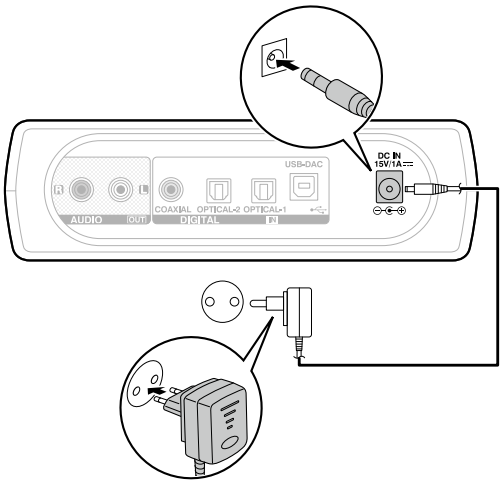
SPECIAL MODE

Special mode setting button

Connect the AC adapter plug to the inlet.
Hold down button "Power operation button" and connect the power cord to an outlet. Hold down button until version is displayed.
Press the "SOURCE" Button after this to change the mode below.

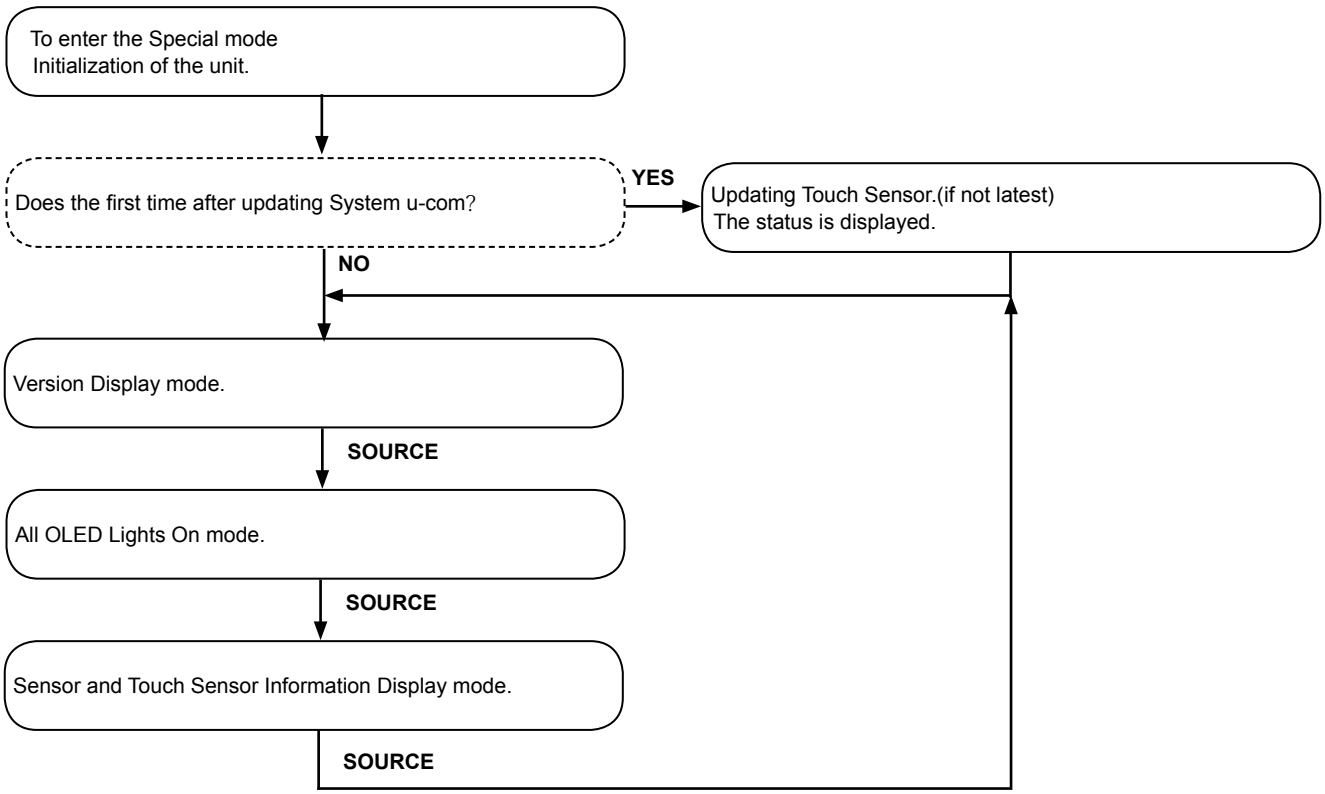
No.	Mode	Button	Contents
1	Initialization	-	Initialize factory setting. (Refer to 10 page.) Touch sencer updating.(if updating System u-com)
2	Version Display	SOURCE	Display the version and the region information.
3	All OLED Lights On	SOURCE	The OLED test.
4	Sensor and Touch Sensor Information Display	SOURCE	Display the selectivity and sensitivity





To exit the special mode disconnect the adapter plug.

Special mode Flow Chart



1. Initialization mode

1.1. Operation

To enter the special mode.
・Hold down button "Power operation button" and connect the power cord to an outlet.
・Hold down button until version is displayed.

1.2. Actions

This unit Initialized automatically.

2. Version Display mode

2.1. Operation

To enter the special mode.
・Hold down button "Power operation button" and connect the power cord to an outlet.
・Hold down button until version is displayed.

2.2. The contents of the display

Display image

SYS: xx.xxrr SYSTEM ucom Version.
SNSR: xx.xx Touch Sensor Version.

USB: xx.xx USB DSP Version.
FPGA: xx.xx FPGA Version.

xx.xx:Number of version.
rr: Information of the region.

For reference:
" E2 " (EU, Auto Standby:Default On)
" _ _ " (Other regions, Auto Standby:Default Off)

2.3. Actions

・Normally display the version number. (See:2.2. The contents of the display)
・Updating touch sensor when the unit start in this mode for the first after updating
Status display is follows.

Display image

UPDATE _ _ _ _ _ Touch sensor IC Update indicate

NOW:xx.xx _ _ Currently Touch sensor version.
NEW:xx.xx _ _ Update version.

_ _ _ _ y _ _ _ _ y _Status

xx.xx:Number of version.

The situation of updating follows.
① Off the Power LED and the Source LED.
② Lit the Power LED.
③ Starting Update.
④ The Power LED is off when the update is finished.
⑤ Lit the Power LED and the Source LED
⑥ Display version.

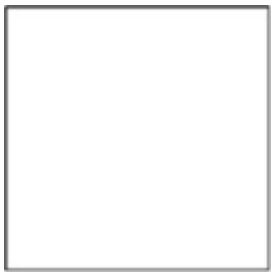
3. All OLED Lights On mode

3.1. Operation

To enter the special mode.
・Hold down button "Power operation button" and connect the power cord to an outlet.
・Hold down button until version is displayed.
Press the "SOURCE" button after version displayed.

3.2. Actions

Display image is below.



4. Sensor and Touch Sensor Information Display mode

4.1. Operation

To enter the special mode.
・Hold down button "Power operation button" and connect the power cord to an outlet.
・Hold down button until version is displayed.
Press the "SOURCE" button twice after version displayed.

4.2. The contents of the display

Display image

GX:_ _ ****.* G-Sensor: X Axis
GY:_ _ ****.* G-Sensor: Y Axis
GZ:_ _ ****.* G-Sensor: Z Axis
TS:_ _ _ _ _### Touch Sensor: A/D Value

PROCEDURE AFTER REPLACING THE MICROPROCESSOR, ETC

The procedure after replacing the u-COM (Microprocessor), flash ROM, etc. is as follows.

PWB Name	Ref. No.	Description	After replaced	Remark
DSP	IC305	STM32F100VCT6B	**B**	SOFTWARE: SYSTEM
DSP	IC206	EPCS4SI8N	**A**	SOFTWARE: FPGA
DSP	IC102	MX25L4006EM2I	**B**	SOFTWARE: DSP

After replacing

A : The software has been written. The software is not written at the time of replacement.

B : The software has been written. The software may need to be rewritten by version updates. Check the version.

C : The software has not been written. The software needs to be written after replacement. See “Firmware UpdateProcedure” for information on writing the software.

D : The software has been written. Be sure to rewrite with the latest software for your service region. See “Firmware Update Procedure” for information on writing the software.

FIRMWARE UPDATE PROCEDURE

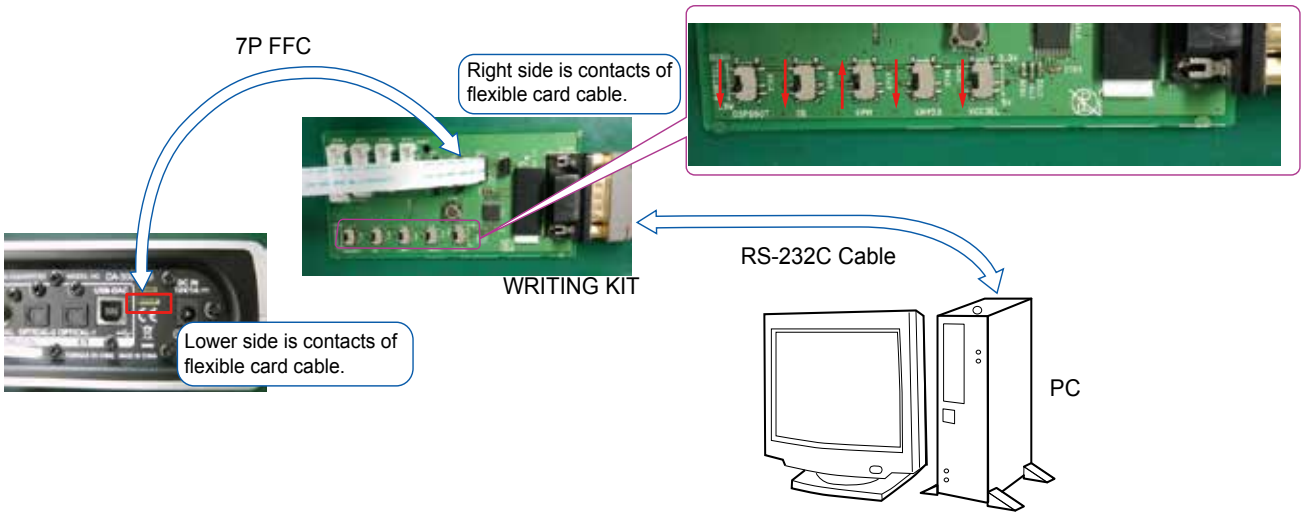
1. Procedure for upgrading IC305

1.1. Items to Be Prepared

(1) Personal Computer (Be installed "Flash_Loader_Demonstrator_v2.6.0_Setup.exe").
(2) RS-232C cable (9P (Male), Straight).
(3) SPK-581 WRITING JIG. 7P FFC(Straight)

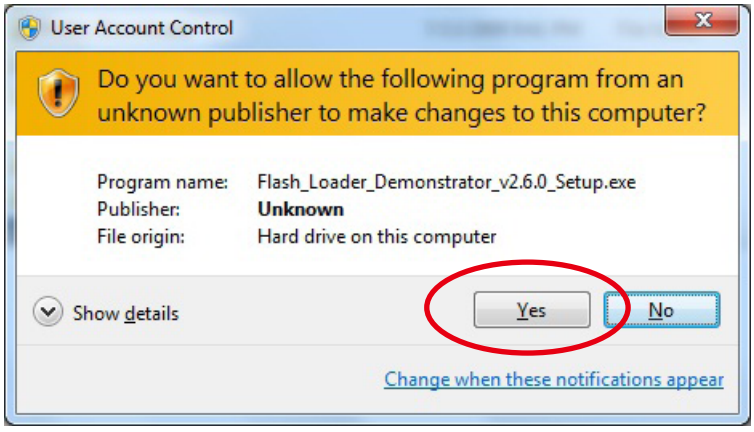
1.2. Connecting the WRITING KIT to the unit

(1) Check that the power of this unit is turned off.
(2) Connect the RS-232C cable from PC with the WRITING KIT.
(3) Connect the WRITING KIT to the update terminal of the unit.

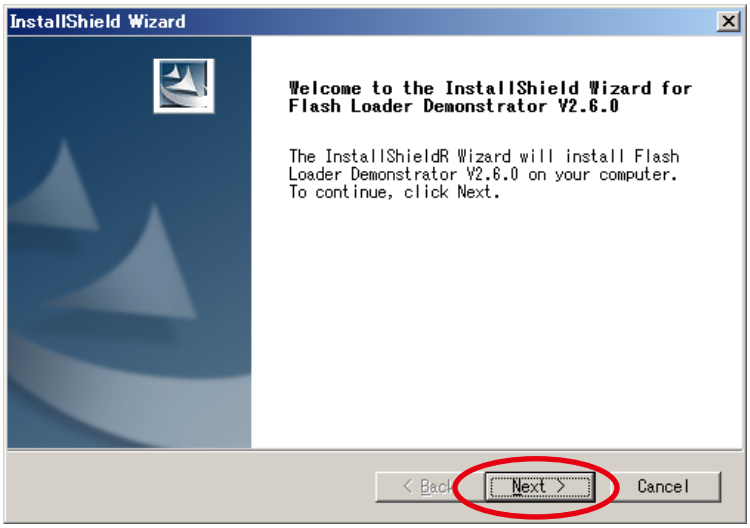


1.3. Installe Flash_Loader_Demonstrator_v2.6.0

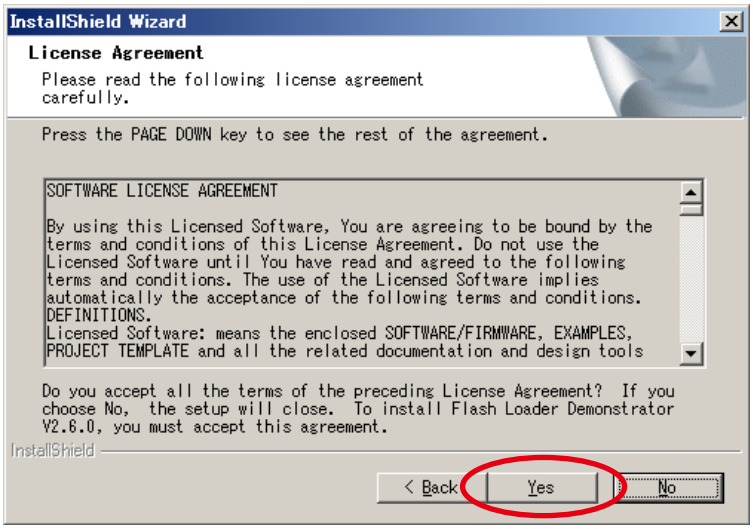
(1) Run the "Flash_Loader_Demonstrator_v2.6.0_Setup.exe"
Click "Yes"


User Account Control
Do you want to allow the following program from an unknown publisher to make changes to this computer?
Program name: Flash_Loader_Demonstrator_v2.6.0_Setup.exe
Publisher: Unknown
File origin: Hard drive on this computer
Show details
Yes
No
Change when these notifications appear

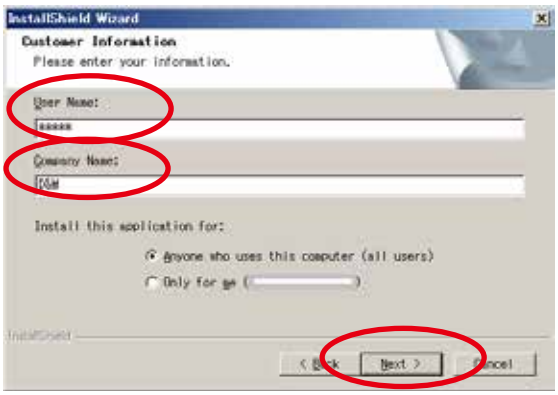
(2) Click "Next >"


InstallShield Wizard
Welcome to the InstallShield Wizard for Flash Loader Demonstrator V2.6.0
The InstallShieldR Wizard will install Flash Loader Demonstrator V2.6.0 on your computer. To continue, click Next.
< Back
Next >
Cancel

(3) Click "Yes"


InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
SOFTWARE LICENSE AGREEMENT
By using this Licensed Software, You are agreeing to be bound by the terms and conditions of this License Agreement. Do not use the Licensed Software until You have read and agreed to the following terms and conditions. The use of the Licensed Software implies automatically the acceptance of the following terms and conditions.
DEFINITIONS.
Licensed Software: means the enclosed SOFTWARE/FIRMWARE, EXAMPLES, PROJECT TEMPLATE and all the related documentation and design tools
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install Flash Loader Demonstrator V2.6.0, you must accept this agreement.
InstallShield
< Back
Yes
No

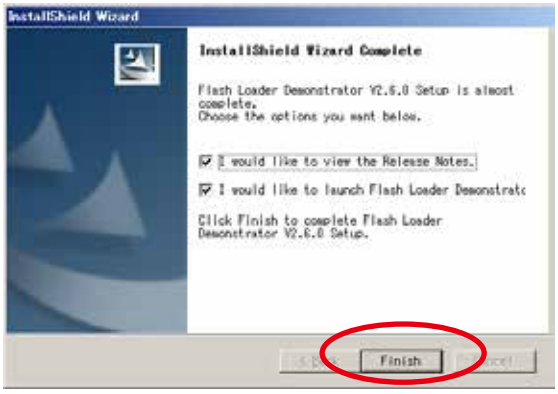
(4) Enter the user name, company name, and Click "Next".



(5) Click "Next>"

InstallShield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install Flash Loader Demonstrator V2.6.0 in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:¥...¥Software¥Flash Loader Demonstrator¥
Browse...
Next >
Cancel

(6) Click "Finish"

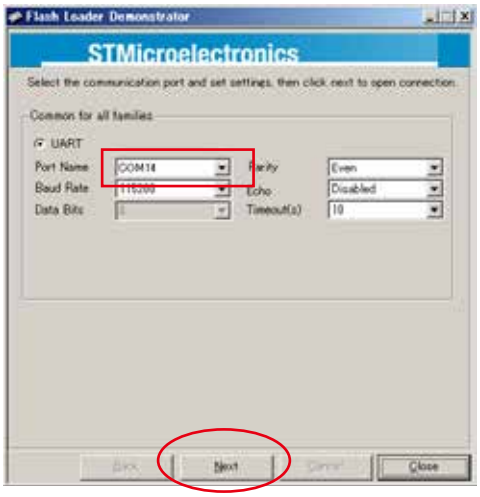

InstallShield Wizard
InstallShield Wizard Complete
Flash Loader Demonstrator V2.6.0 Setup is almost complete.
Choose the options you want below.
I would like to view the Release Notes.
I would like to launch Flash Loader Demonstrator
Click Finish to complete Flash Loader Demonstrator V2.6.0 Setup.
Finish

1.4. Run the DFW

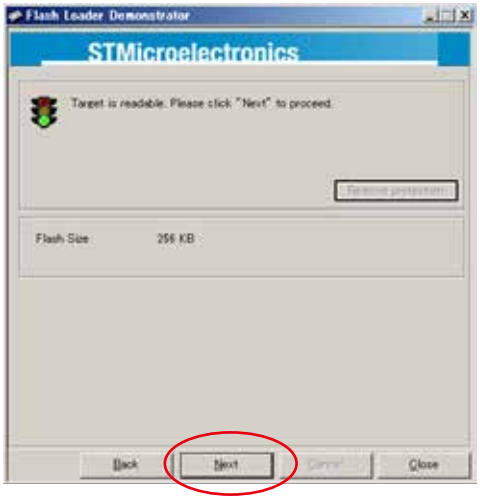
Run the "STMicroelectronics flash loader.exe" on desktop of PC.

(1) Click the "Flash Loader Demo"

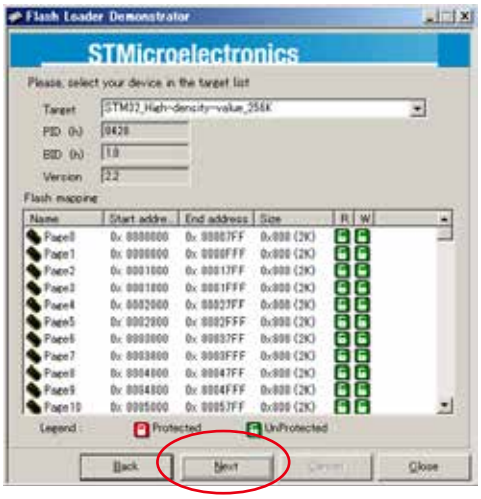
(2) Select the RS-232C serial port number on your computer.
Connect the AC adapter plug to the inlet and connect the power cord to an outlet.
Click "Next"



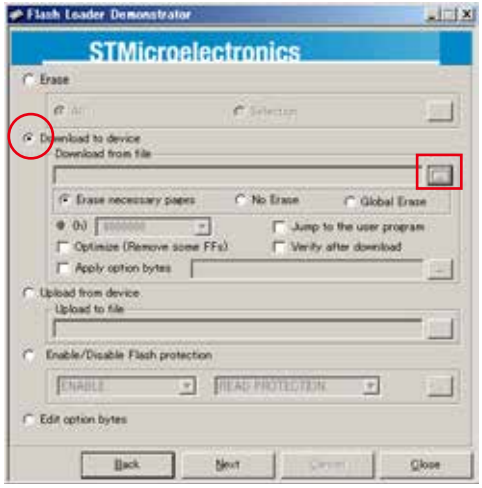
(3) Click "Next"

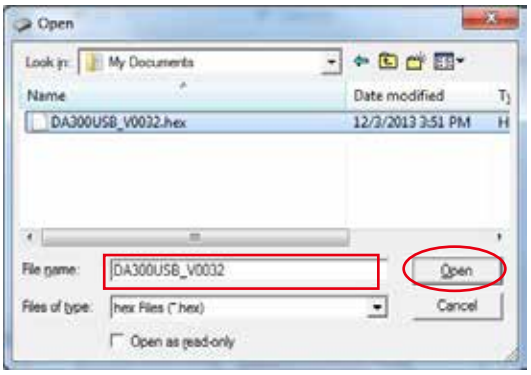


(4)Click "Next"

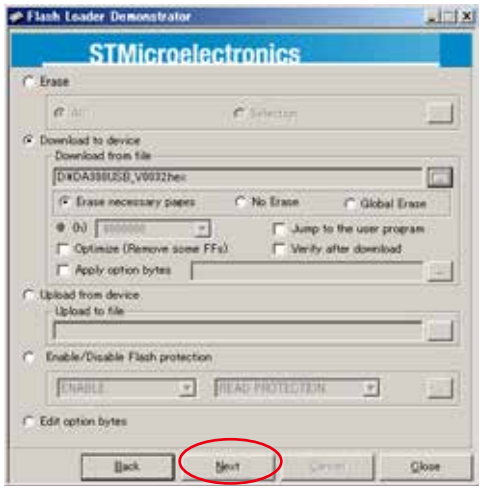


(5)Checked "Download to device" and click buttom of "Download from file".
Select the specified update file and click the “Open” button.



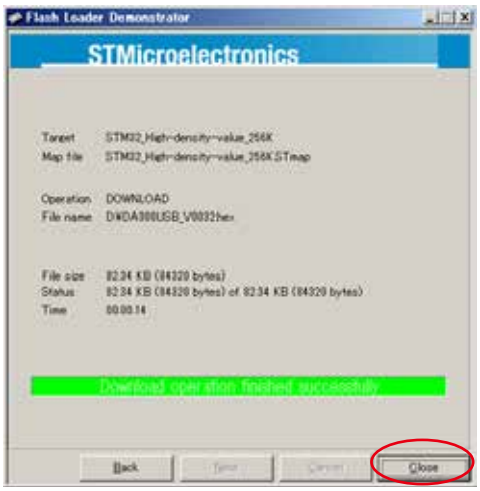


(6) Click "Next"



(7) Downloading and writing the file.

(8) Will display the following, the update is completed.
Click "Close".



(9) Disconnect the power cord from an outlet.
Remove the 7P FFC form the unit.

(10) After updating the firmware, check the version.
See 16 page.

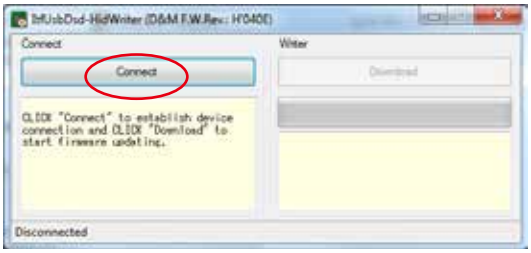
2. Procedure for upgrading IC101

2.1. Items to Be Prepared

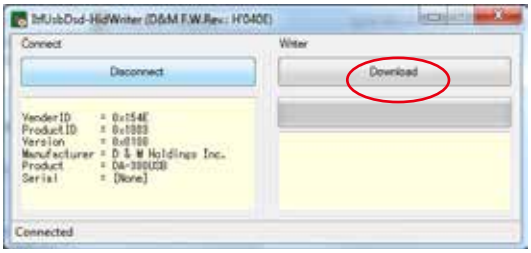
(1) Personal Computer (Be installed "ItfUsbDsd-HidWriter.exe").
(2) USB cable (A type-B type).

2.2. Updating procedure

(1) Connecting the USB cable to the unit.
(2) Press the "Power operation" button to turn on the power.
(3) Run the "ItfUsbDsd-HidWriter.exe".
Click "Connect".

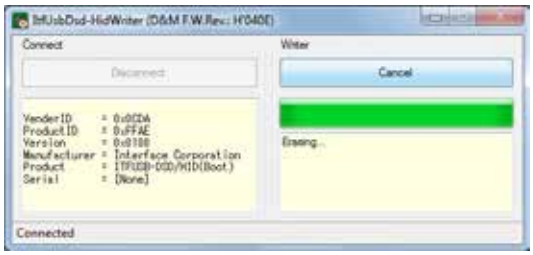


(4) Click "Download".



(5)Status order are below.

Erasing



Programming

Verifying

Succeeded

(6)Turn off the unit, and disconnect the power cord from an outlet.

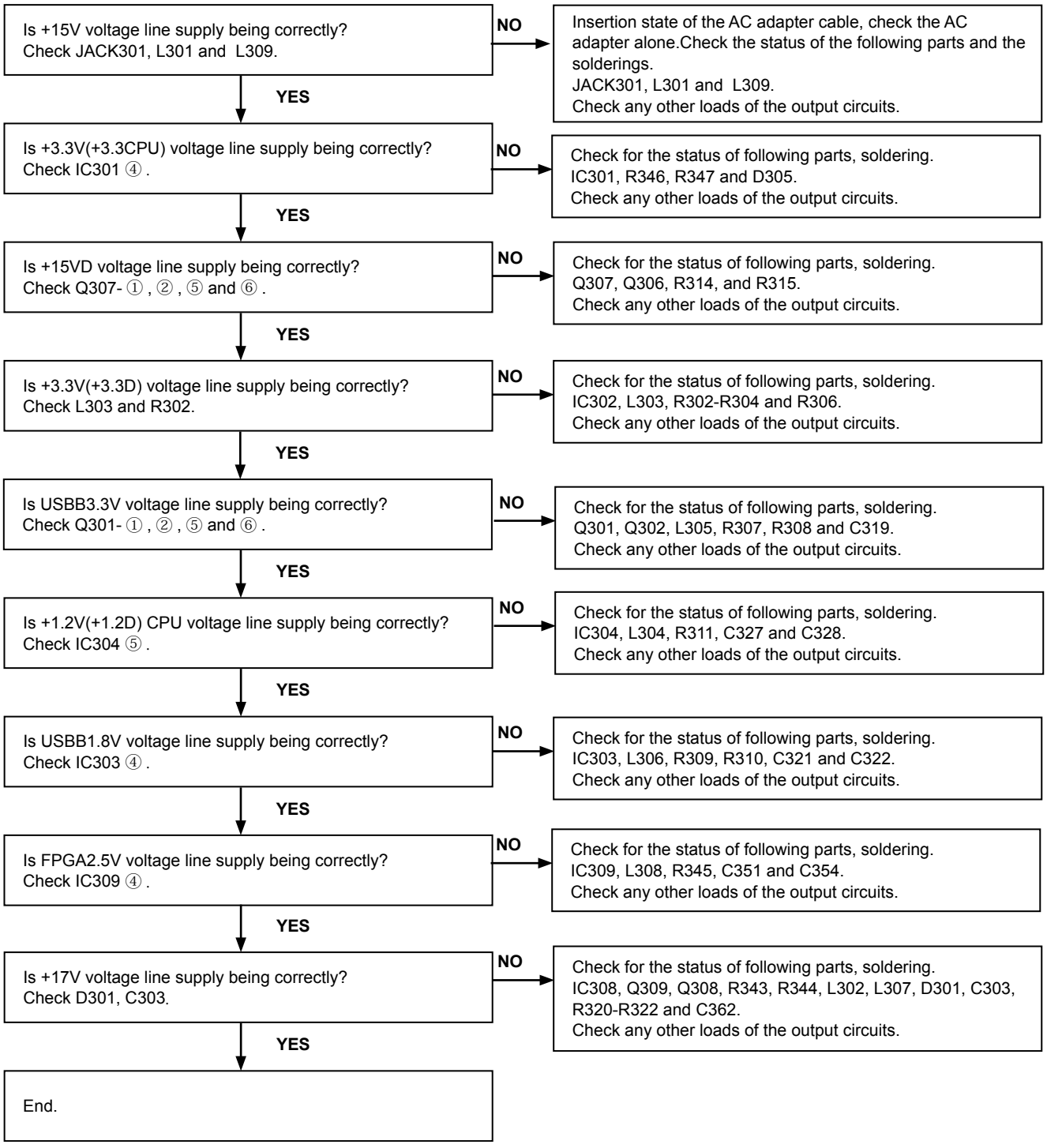
(7)After updating the firmware, check the version.

See 16 page.

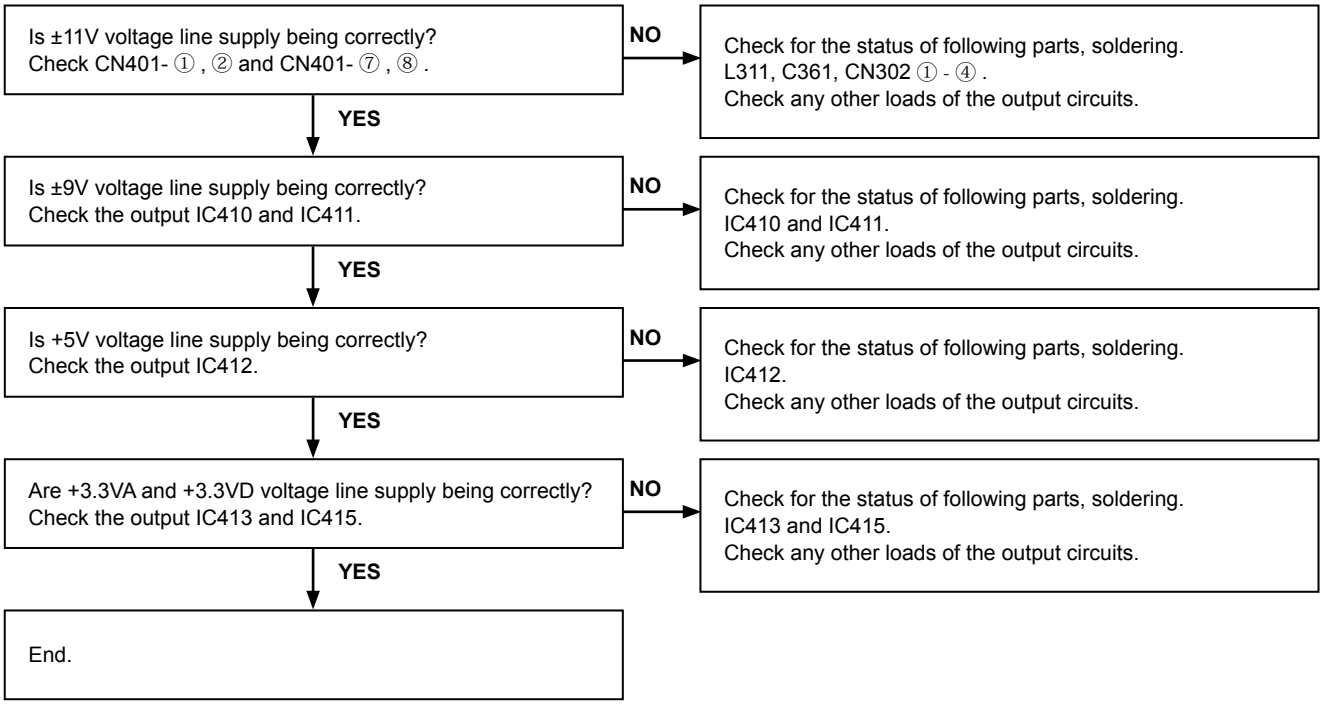
TROUBLE SHOOTING

1. Check the voltage

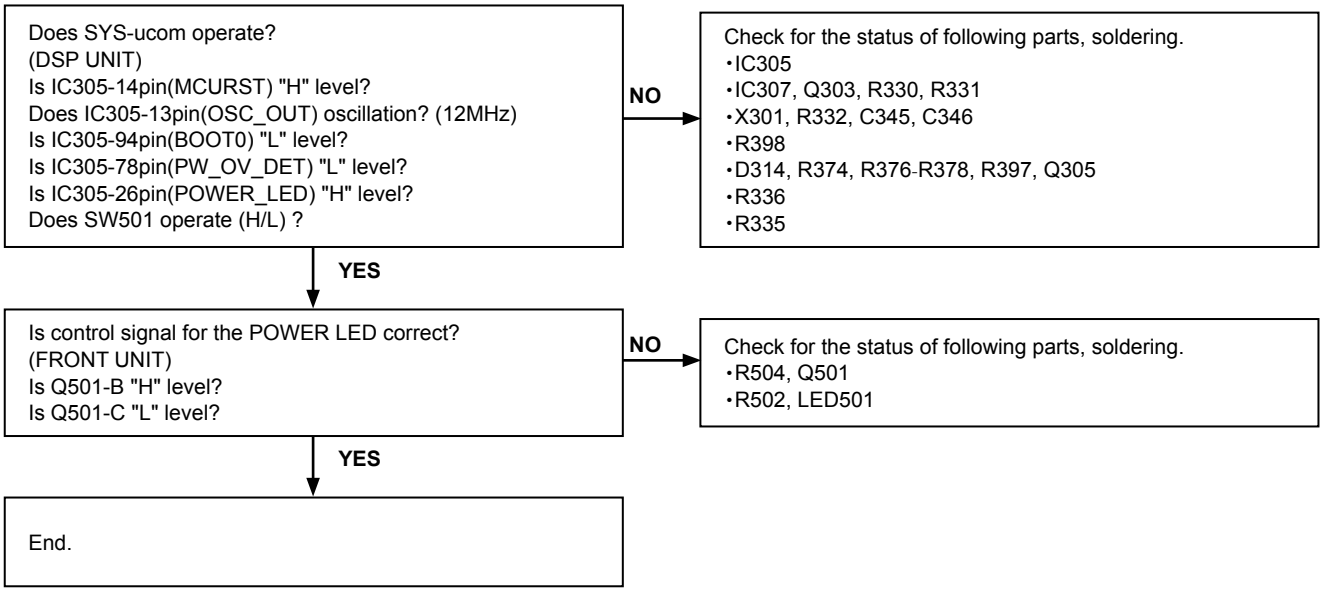
1.1. DSP PWB


Is +15V voltage line supply being correctly?
Check JACK301, L301 and L309.
NO
Insertion state of the AC adapter cable, check the AC adapter alone.Check the status of the following parts and the solderings.
JACK301, L301 and L309.
Check any other loads of the output circuits.
YES
Is +3.3V(+3.3CPU) voltage line supply being correctly?
Check IC301 ④ .
NO
Check for the status of following parts, soldering.
IC301, R346, R347 and D305.
Check any other loads of the output circuits.
YES
Is +15VD voltage line supply being correctly?
Check Q307- ① , ② , ⑤ and ⑥ .
NO
Check for the status of following parts, soldering.
Q307, Q306, R314, and R315.
Check any other loads of the output circuits.
YES
Is +3.3V(+3.3D) voltage line supply being correctly?
Check L303 and R302.
NO
Check for the status of following parts, soldering.
IC302, L303, R302-R304 and R306.
Check any other loads of the output circuits.
YES
Is USBB3.3V voltage line supply being correctly?
Check Q301- ① , ② , ⑤ and ⑥ .
NO
Check for the status of following parts, soldering.
Q301, Q302, L305, R307, R308 and C319.
Check any other loads of the output circuits.
YES
Is +1.2V(+1.2D) CPU voltage line supply being correctly?
Check IC304 ⑤ .
NO
Check for the status of following parts, soldering.
IC304, L304, R311, C327 and C328.
Check any other loads of the output circuits.
YES
Is USBB1.8V voltage line supply being correctly?
Check IC303 ④ .
NO
Check for the status of following parts, soldering.
IC303, L306, R309, R310, C321 and C322.
Check any other loads of the output circuits.
YES
Is FPGA2.5V voltage line supply being correctly?
Check IC309 ④ .
NO
Check for the status of following parts, soldering.
IC309, L308, R345, C351 and C354.
Check any other loads of the output circuits.
YES
Is +17V voltage line supply being correctly?
Check D301, C303.
NO
Check for the status of following parts, soldering.
IC308, Q309, Q308, R343, R344, L302, L307, D301, C303, R320-R322 and C362.
Check any other loads of the output circuits.
YES
End.

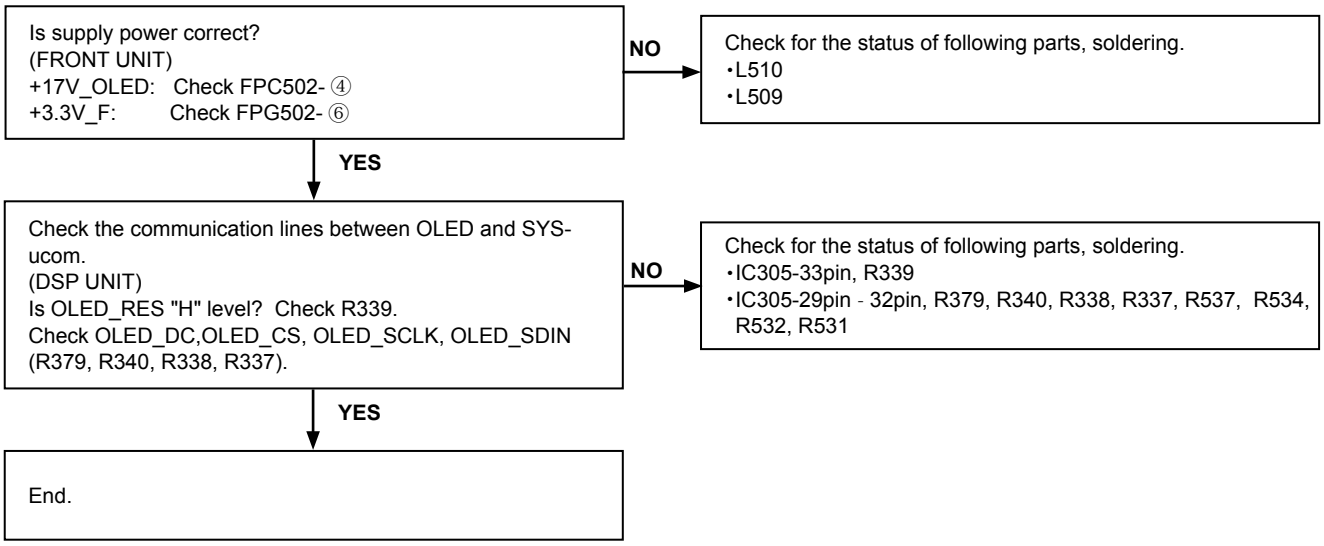
1.2. MAIN PWB


Is ±11V voltage line supply being correctly?
Check CN401- ① , ② and CN401- ⑦ , ⑧ .
NO
Check for the status of following parts, soldering.
L311, C361, CN302 ① - ④ .
Check any other loads of the output circuits.
YES
Is ±9V voltage line supply being correctly?
Check the output IC410 and IC411.
NO
Check for the status of following parts, soldering.
IC410 and IC411.
Check any other loads of the output circuits.
YES
Is +5V voltage line supply being correctly?
Check the output IC412.
NO
Check for the status of following parts, soldering.
IC412.
Check any other loads of the output circuits.
YES
Are +3.3VA and +3.3VD voltage line supply being correctly?
Check the output IC413 and IC415.
NO
Check for the status of following parts, soldering.
IC413 and IC415.
Check any other loads of the output circuits.
YES
End.

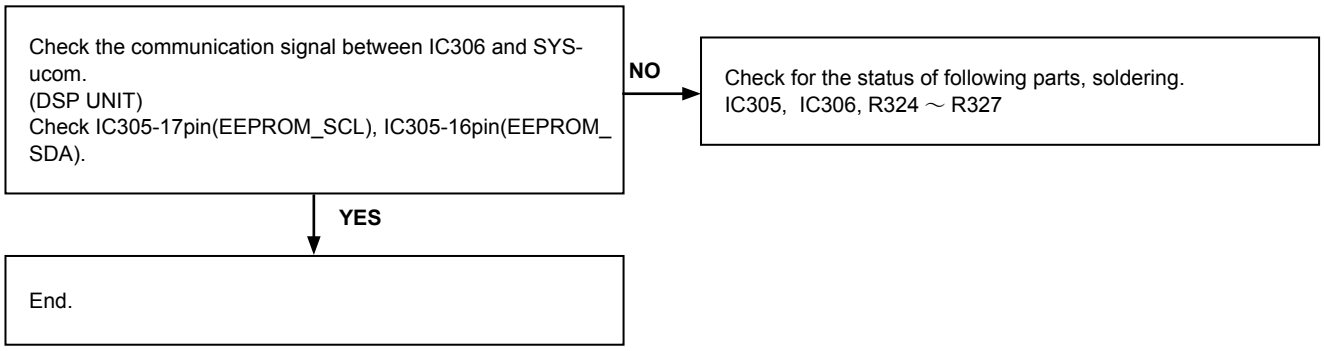
2. The Power LED doesn't light



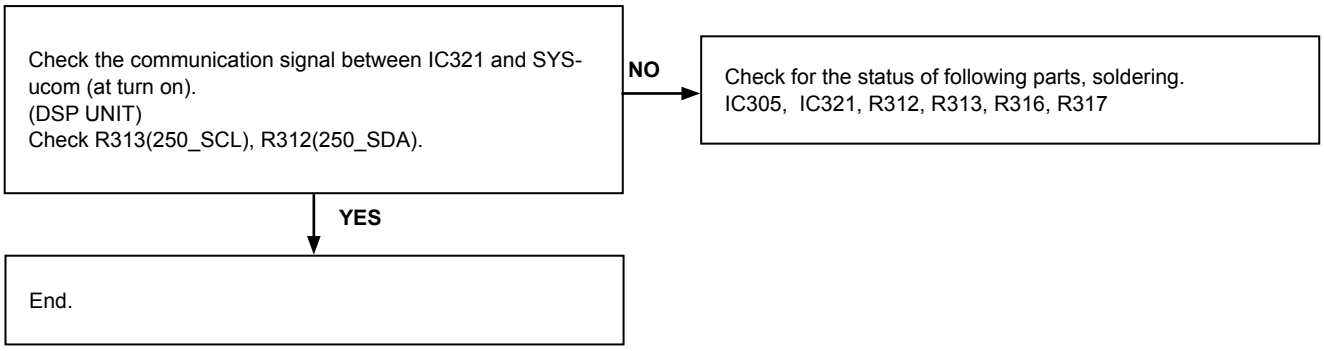
3. OLED does not display.



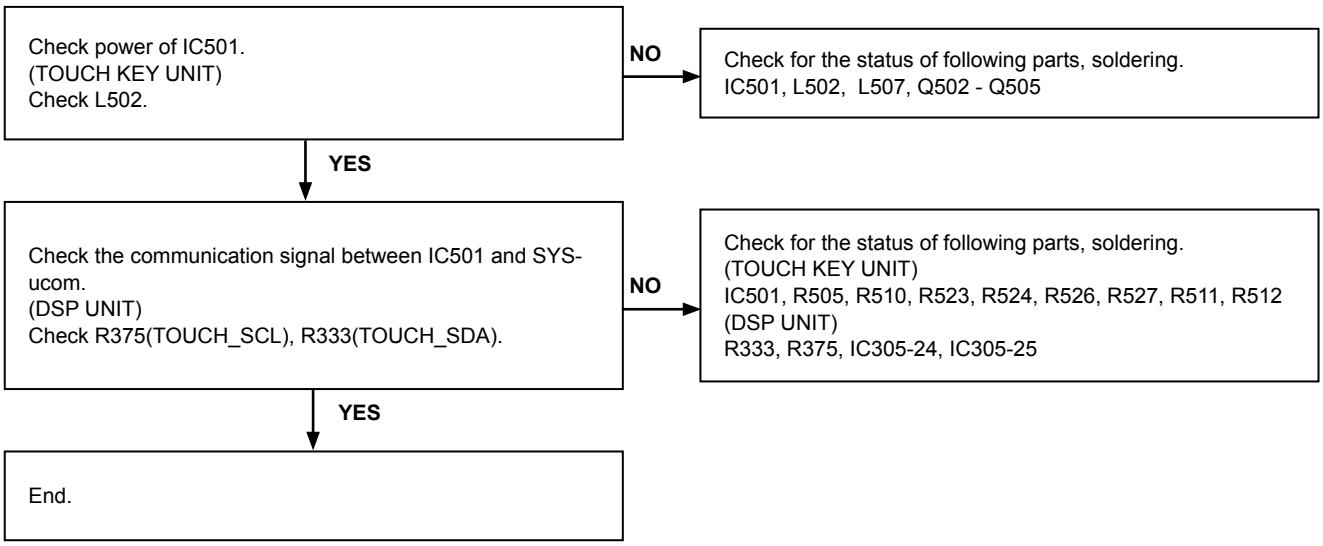
4. Headphone volume level is not stored



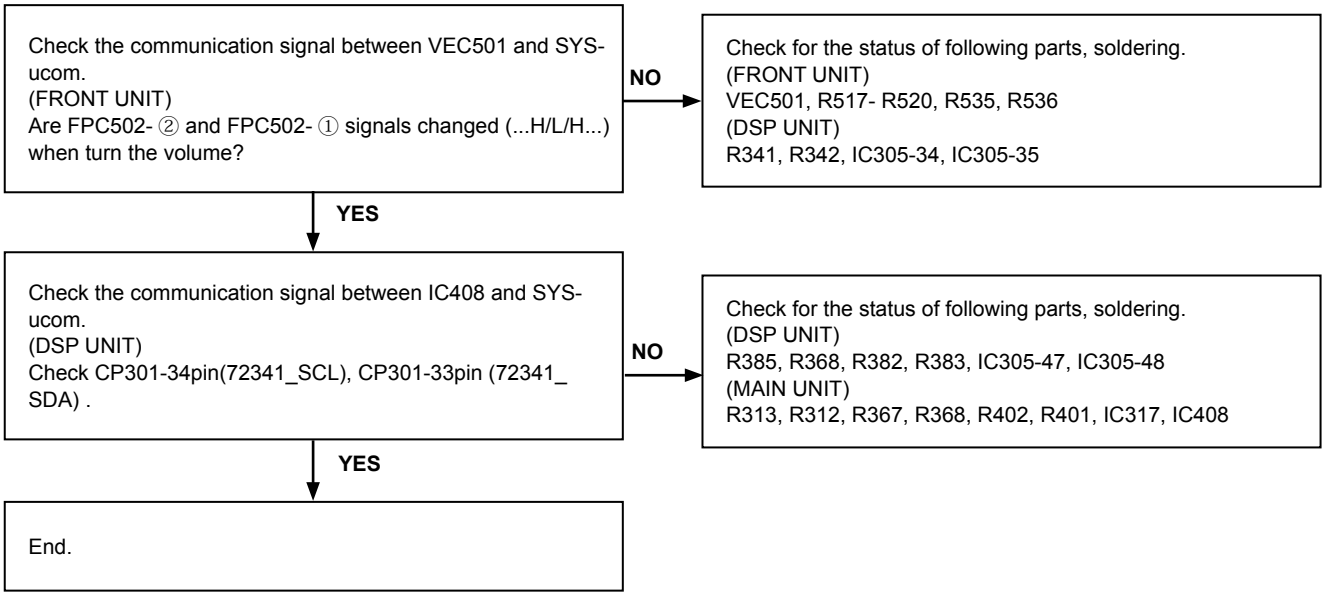
5. The display does not switch between an upright position and a horizontal position.


Check the communication signal between IC321 and SYS-ucom (at turn on).
(DSP UNIT)
Check R313(250_SCL), R312(250_SDA).
NO
Check for the status of following parts, soldering.
IC305, IC321, R312, R313, R316, R317
YES
End.

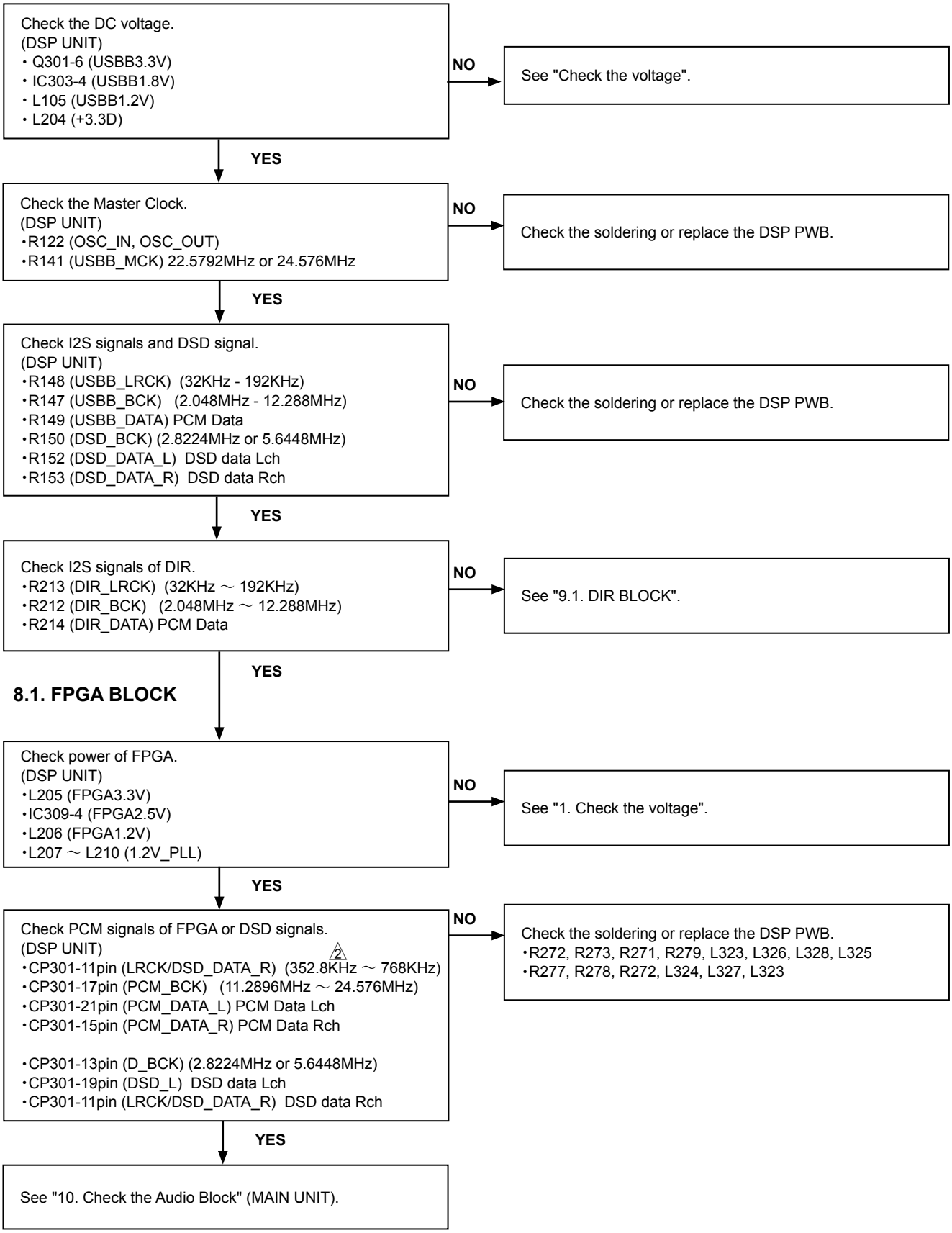
6. The input source can not be changed



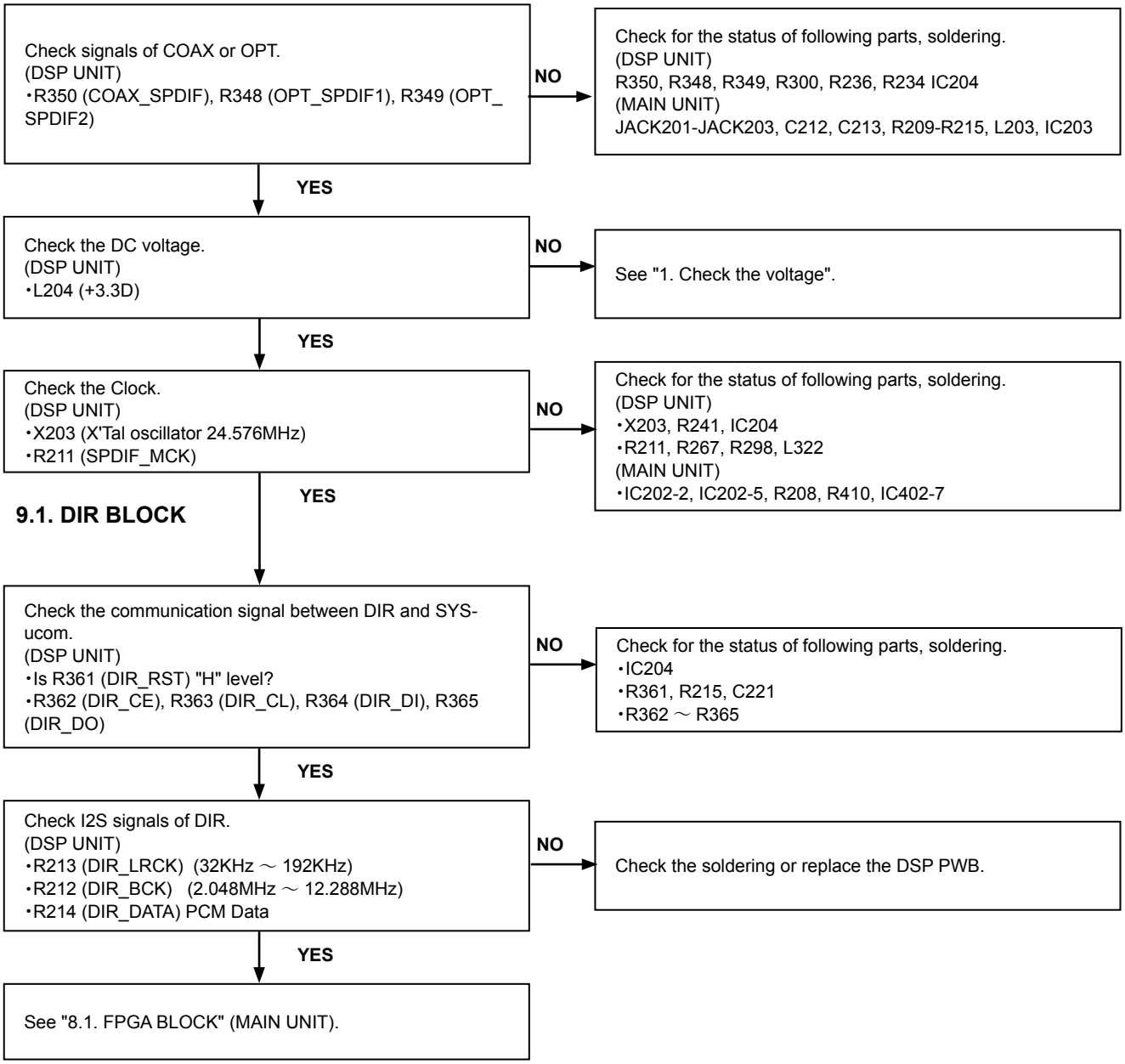
7. Headphone volume can not be changed


Check the communication signal between VEC501 and SYS-ucom.
(FRONT UNIT)
Are FPC502- ② and FPC502- ① signals changed (...H/L/H...) when turn the volume?
NO
Check for the status of following parts, soldering.
(FRONT UNIT)
VEC501, R517- R520, R535, R536
(DSP UNIT)
R341, R342, IC305-34, IC305-35
YES
Check the communication signal between IC408 and SYS-ucom.
(DSP UNIT)
Check CP301-34pin(72341_SCL), CP301-33pin (72341_SDA) .
NO
Check for the status of following parts, soldering.
(DSP UNIT)
R385, R368, R382, R383, IC305-47, IC305-48
(MAIN UNIT)
R313, R312, R367, R368, R402, R401, IC317, IC408
YES
End.

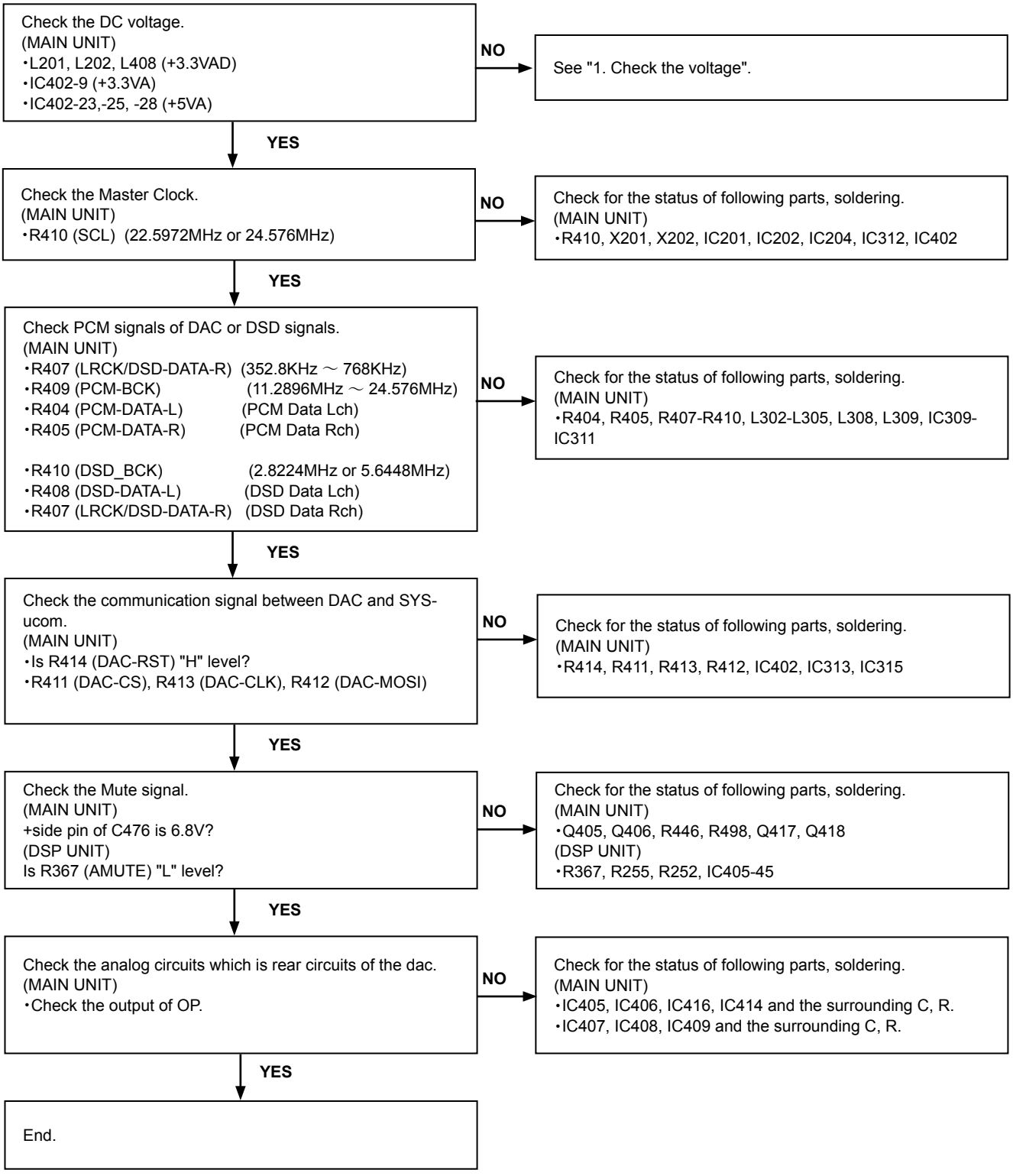
8. No audio output from USB ⚠2



9. No audio output from COAX or OPT



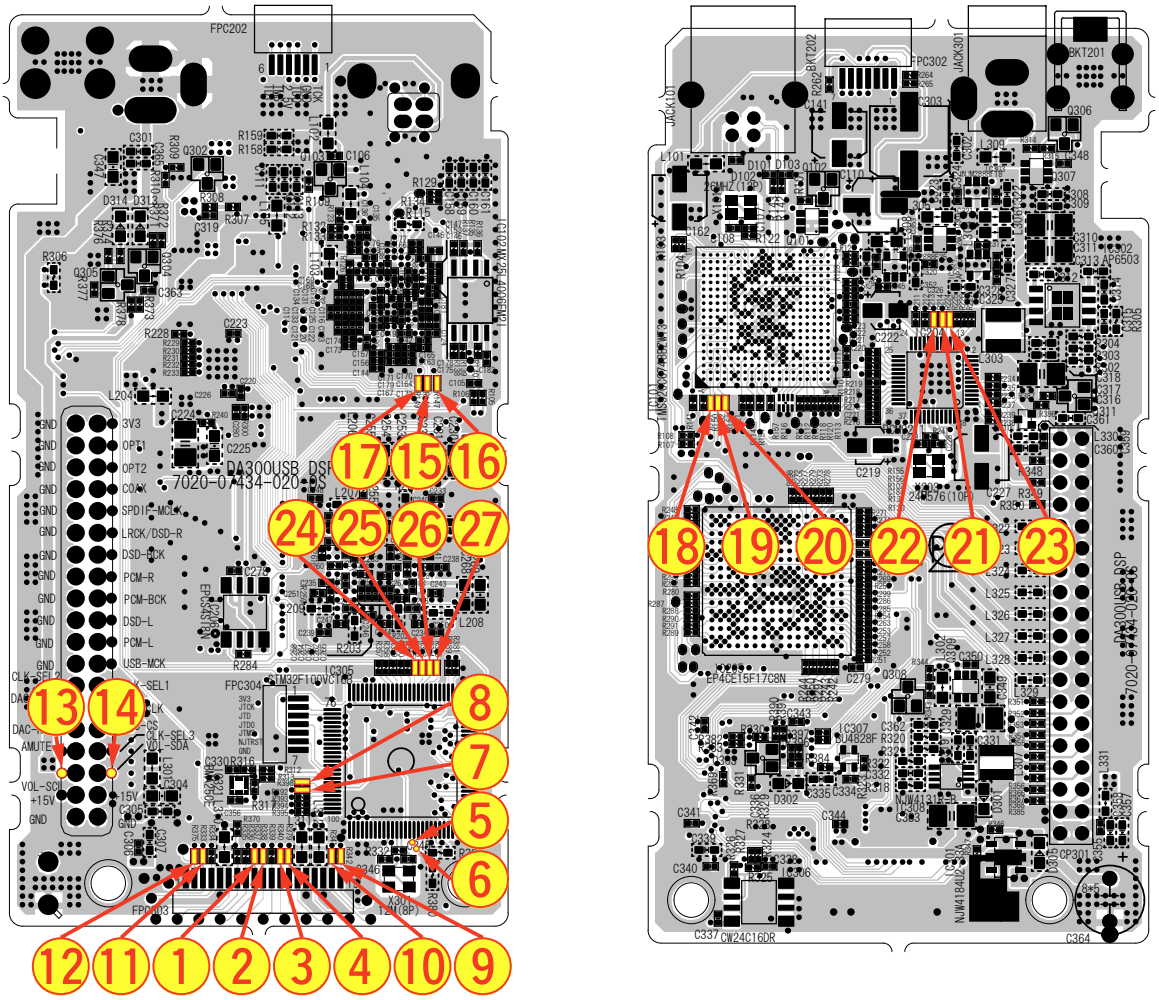
10. Check the Audio Block


Check the DC voltage.
(MAIN UNIT)
・L201, L202, L408 (+3.3VAD)
・IC402-9 (+3.3VA)
・IC402-23,-25, -28 (+5VA)
NO
See "1. Check the voltage".
YES
Check the Master Clock.
(MAIN UNIT)
・R410 (SCL) (22.5972MHz or 24.576MHz)
NO
Check for the status of following parts, soldering.
(MAIN UNIT)
・R410, X201, X202, IC201, IC202, IC204, IC312, IC402
YES
Check PCM signals of DAC or DSD signals.
(MAIN UNIT)
・R407 (LRCK/DSD-DATA-R) (352.8KHz ～ 768KHz)
・R409 (PCM-BCK) (11.2896MHz ～ 24.576MHz)
・R404 (PCM-DATA-L) (PCM Data Lch)
・R405 (PCM-DATA-R) (PCM Data Rch)
・R410 (DSD_BCK) (2.8224MHz or 5.6448MHz)
・R408 (DSD-DATA-L) (DSD Data Lch)
・R407 (LRCK/DSD-DATA-R) (DSD Data Rch)
NO
Check for the status of following parts, soldering.
(MAIN UNIT)
・R404, R405, R407-R410, L302-L305, L308, L309, IC309-IC311
YES
Check the communication signal between DAC and SYS-ucom.
(MAIN UNIT)
・Is R414 (DAC-RST) "H" level?
・R411 (DAC-CS), R413 (DAC-CLK), R412 (DAC-MOSI)
NO
Check for the status of following parts, soldering.
(MAIN UNIT)
・R414, R411, R413, R412, IC402, IC313, IC315
YES
Check the Mute signal.
(MAIN UNIT)
+side pin of C476 is 6.8V?
(DSP UNIT)
Is R367 (AMUTE) "L" level?
NO
Check for the status of following parts, soldering.
(MAIN UNIT)
・Q405, Q406, R446, R498, Q417, Q418
(DSP UNIT)
・R367, R255, R252, IC405-45
YES
Check the analog circuits which is rear circuits of the dac.
(MAIN UNIT)
・Check the output of OP.
NO
Check for the status of following parts, soldering.
(MAIN UNIT)
・IC405, IC406, IC416, IC414 and the surrounding C, R.
・IC407, IC408, IC409 and the surrounding C, R.
YES
End.

MEASURING METHOD AND WAVEFORMS

It is the better way to use an extension wire between the test point and the probe.

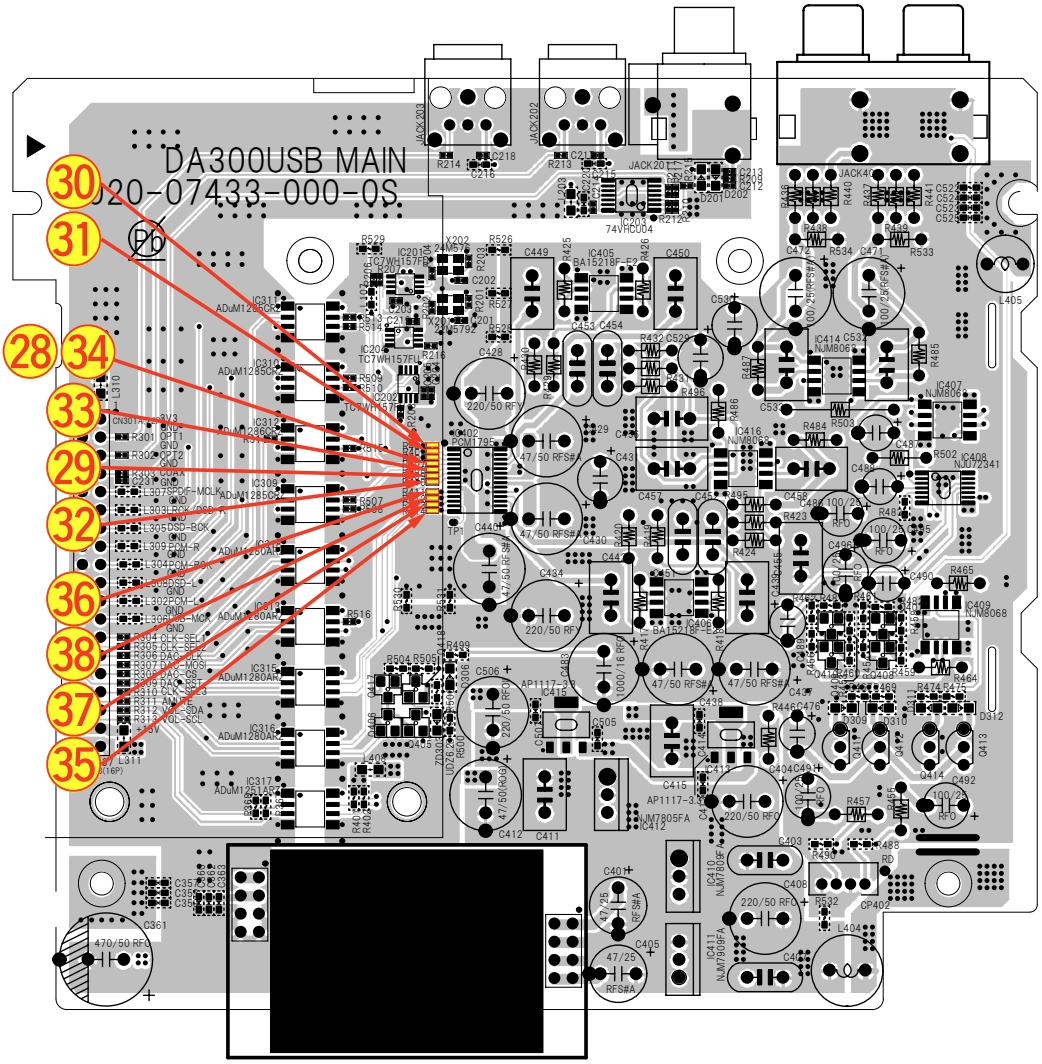
DSP PCB test points



DSP PCB : A and B Side

①	R379 OLED_DC	⑪	R341 VOL_UP	㉑	R213 DIR_LRCK
②	R340 OLED_CS	⑫	R342 VOL_DN	㉒	R212 DIR_BCK
③	R338 OLED_SCLK	⑬	CP301-34pin 72341_SCL	㉓	R214 DIR_DATA
④	R337 OLED_SDIN	⑭	CP301-33pin 72341_SDA	㉔	R362 DIR_CE
⑤	IC305-17pin EEPROM_SCL	⑮	R148 USBB_LRCK	㉕	R363 DIR_CL
⑥	IC305-16pin EEPROM_SDA	⑯	R147 USBB_BCK	㉖	R364 DIR_DI
⑦	R313 250_SCL	⑰	R149 USBB_DATA	㉗	R365 DIR_DO
⑧	R312 250_SDA	⑱	R150 DSD_BCK	㉘	
⑨	R375 TOUCH_SCL	⑲	R152 DSD_DATA_L		
⑩	R333 TOUCH_SDA	⑳	R153 DSD_DATA_R		

MAIN PCB test points



MAIN PCB : A Side

㉘	R407 LRCK	㉜	R410 DSD_BCK	㊱	R411 DAC-CS
㉙	R409 PCM-BCK	㉝	R408 DSD-DATA-L	㊲	R413 DAC-CLK
㉚	R404 PCM-DATA-L	㉞	R407 DSD-DATA-R	㊳	R412 DAC-MOSI
㉛	R405 PCM-DATA-R	㉟	R414 DAC-RST		

WAVEFORMS

fig.1 OLED SYS-com communication waveform

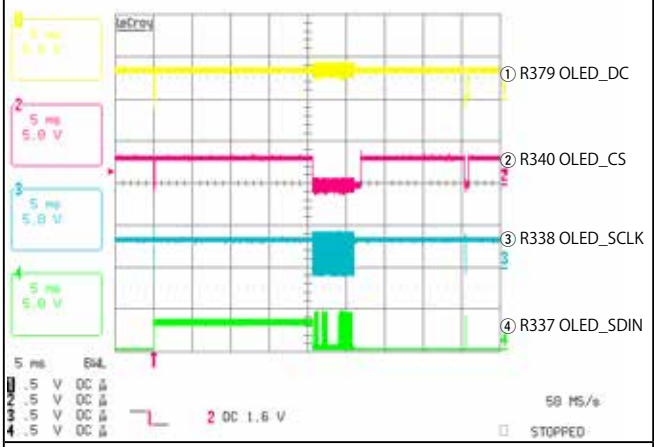


fig.2 IC305 SYS-ucom communication waveform (Headphone volume operation.)

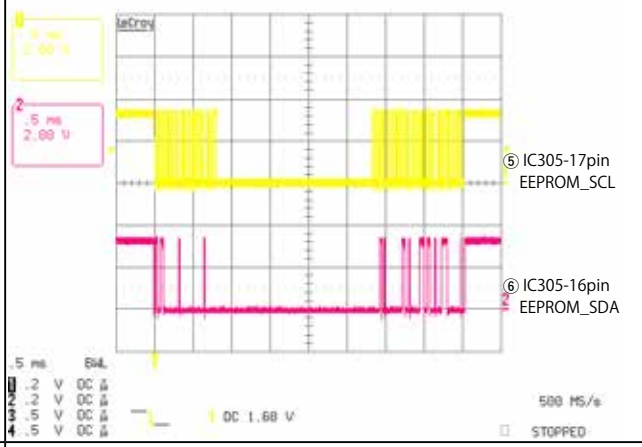


fig.3 IC305 SYS-ucom communication waveform (Poewer ON)

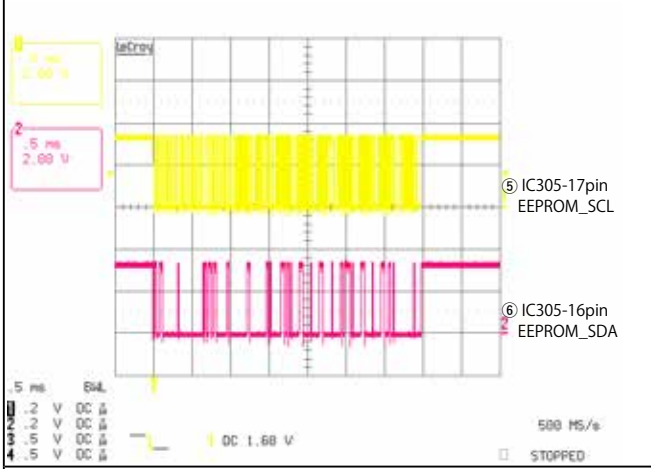


fig.4 IC321 SYS-ucom communication waveform

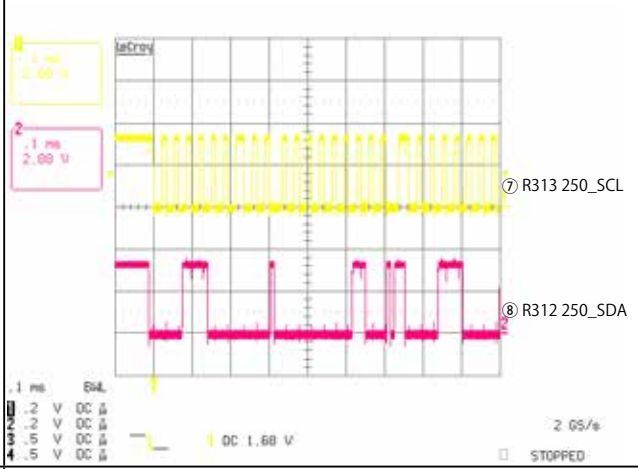


fig.5 IC501 SYS-ucom communication waveform

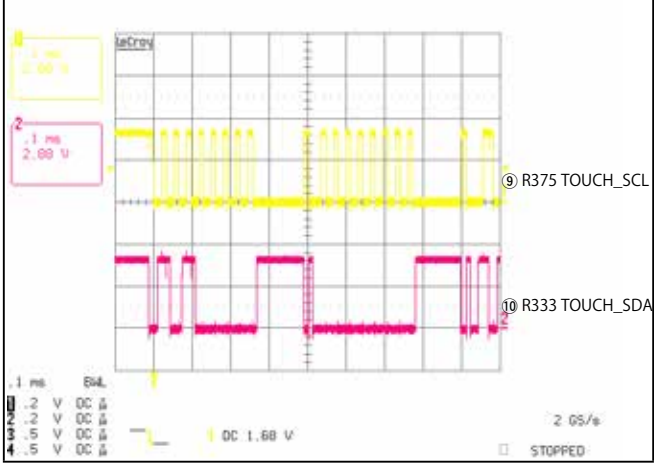


fig.6 IC408 SYS-ucom communication waveform

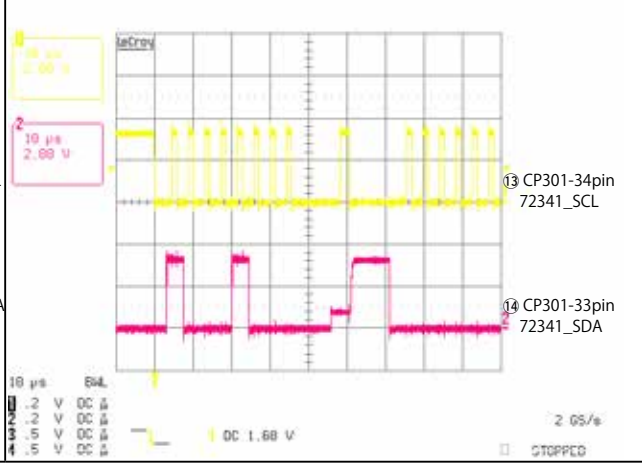


fig.7 VEC501 SYS-ucom communication waveform (VOL UP)

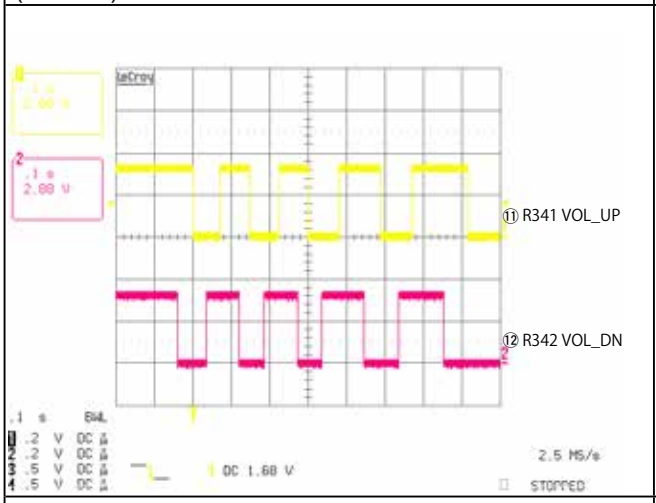


fig.8 VEC501 SYS-ucom communication waveform (VOL DOWN)

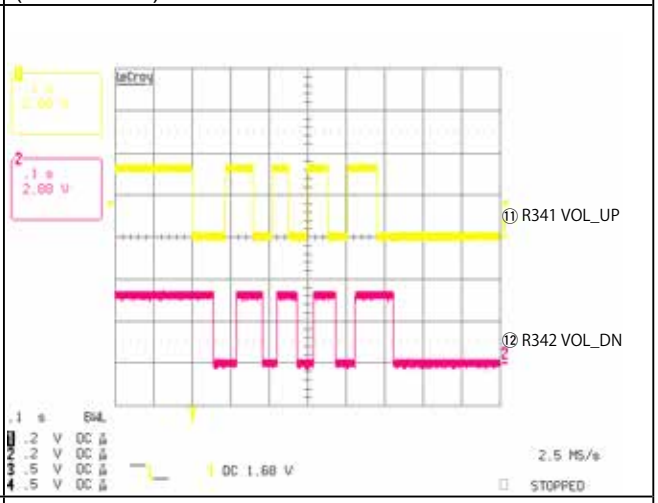


fig.9 USBB I2S signal waveform

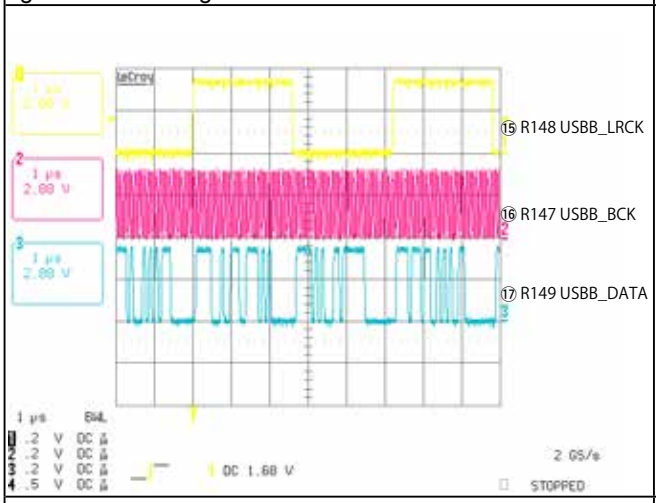


fig.10 USBB DSD signal waveform

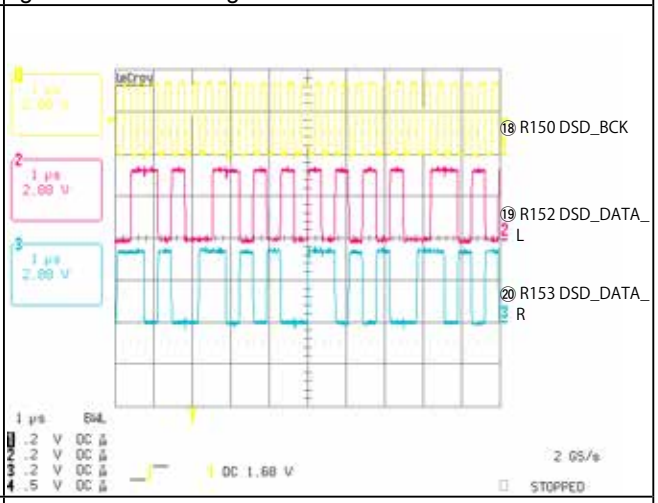


fig.11 DIR I2S signal waveform

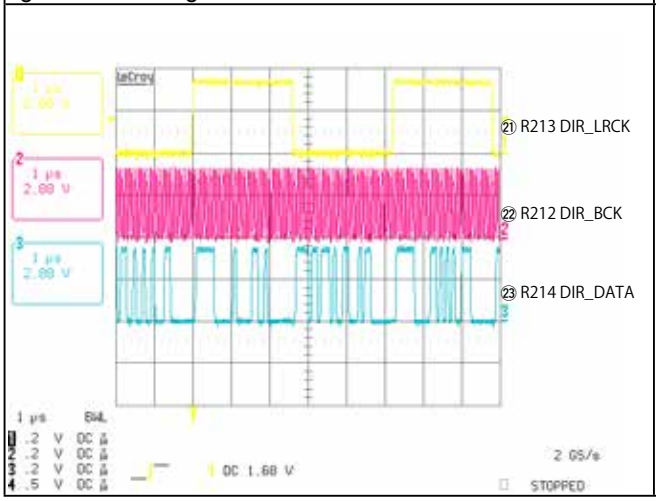


fig.12 DAC PCM signal waveform

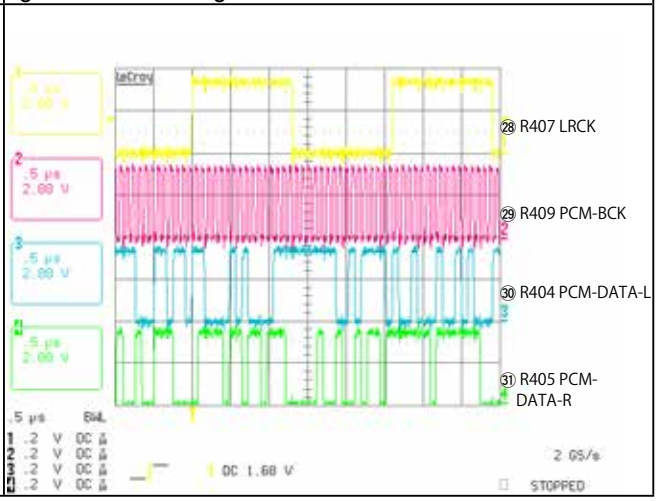


fig.13 DAC DSD signal waveform

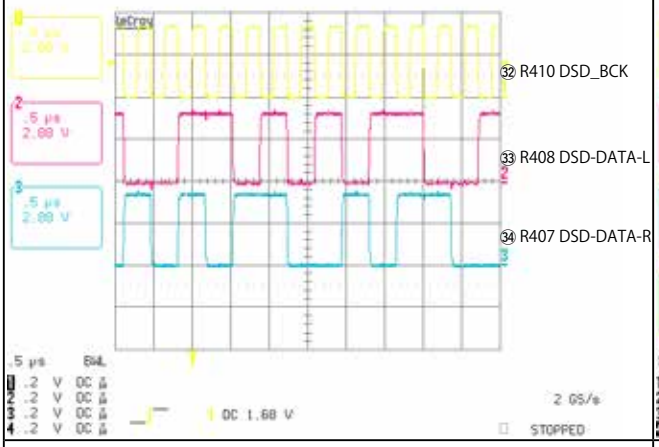


fig.14 DAC SYS-ucom communication waveform

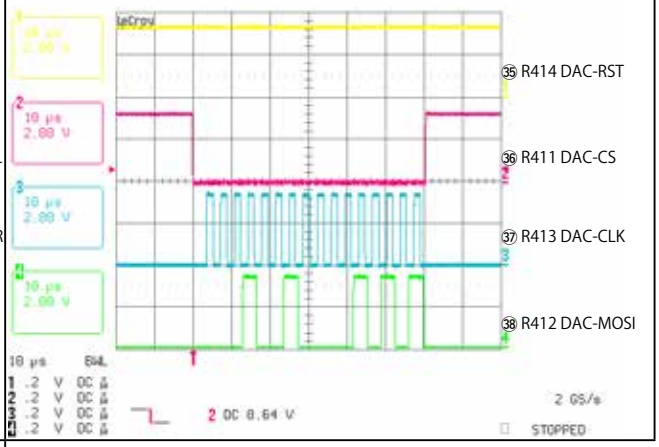
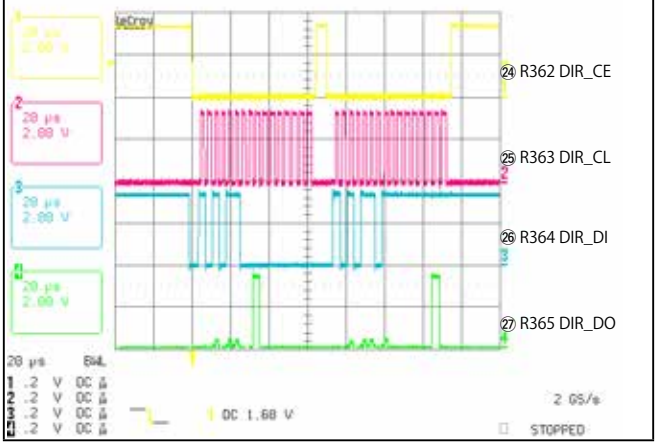
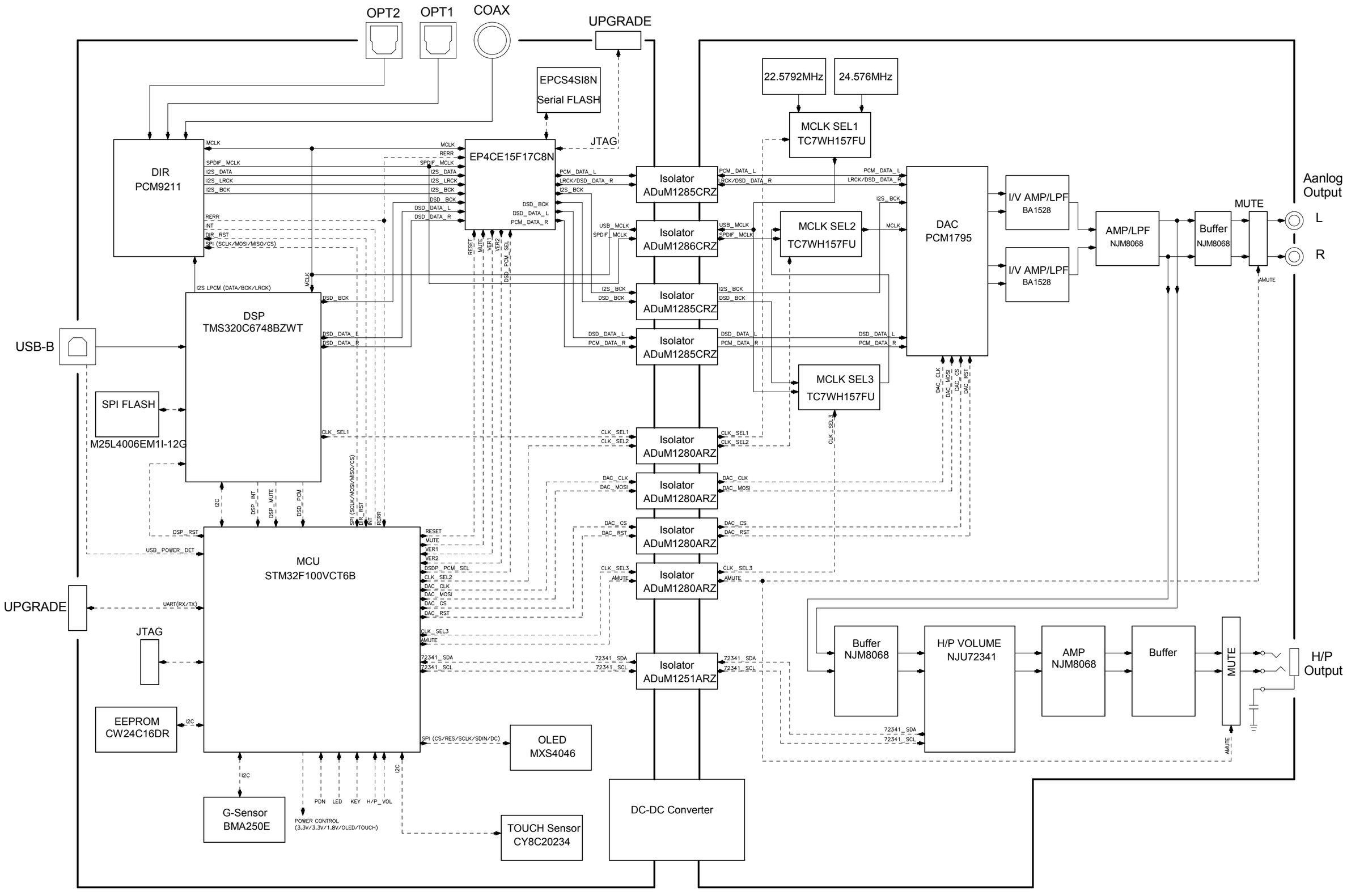


fig.15 DIR SYS-ucom communication waveform

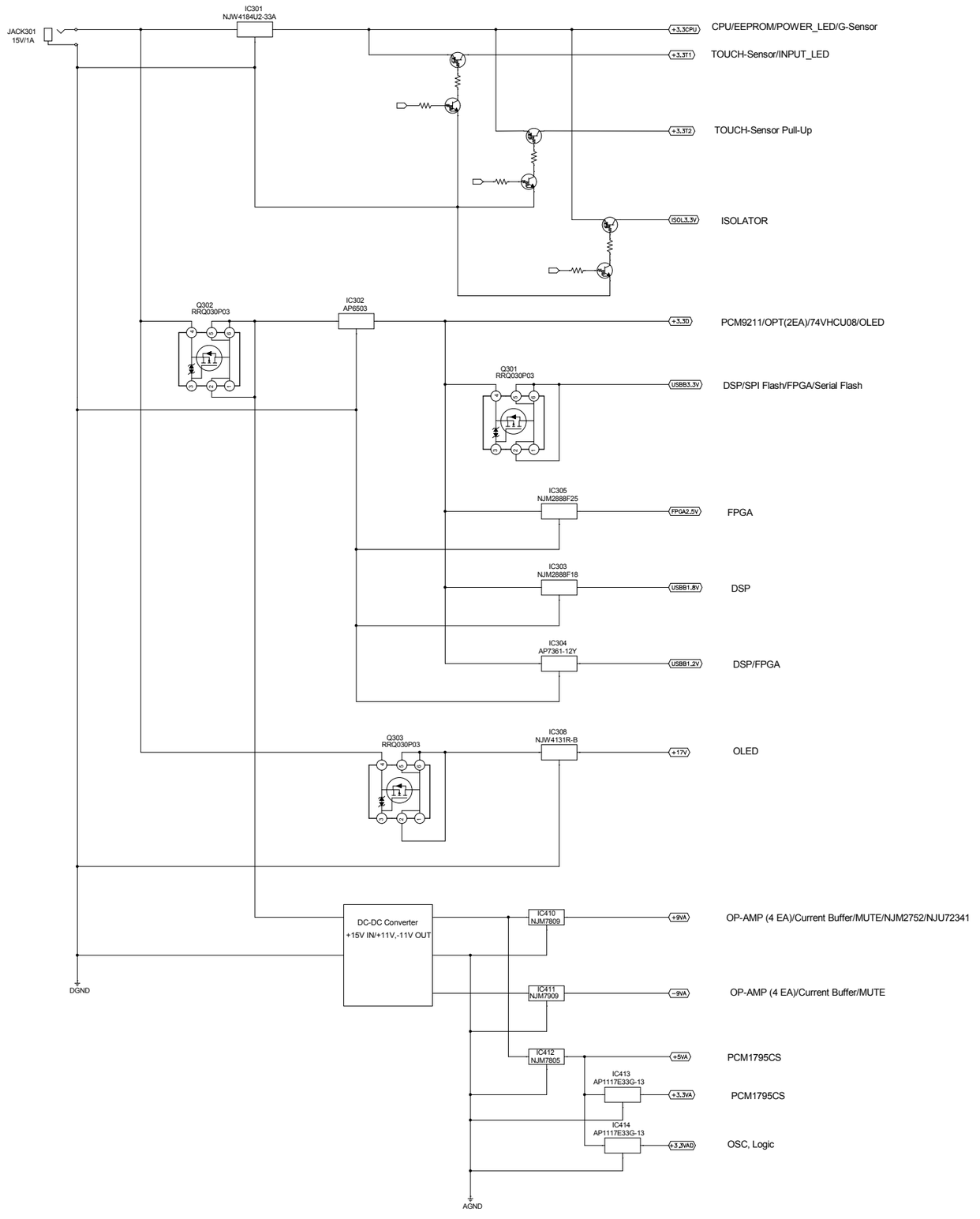


Personal notes:

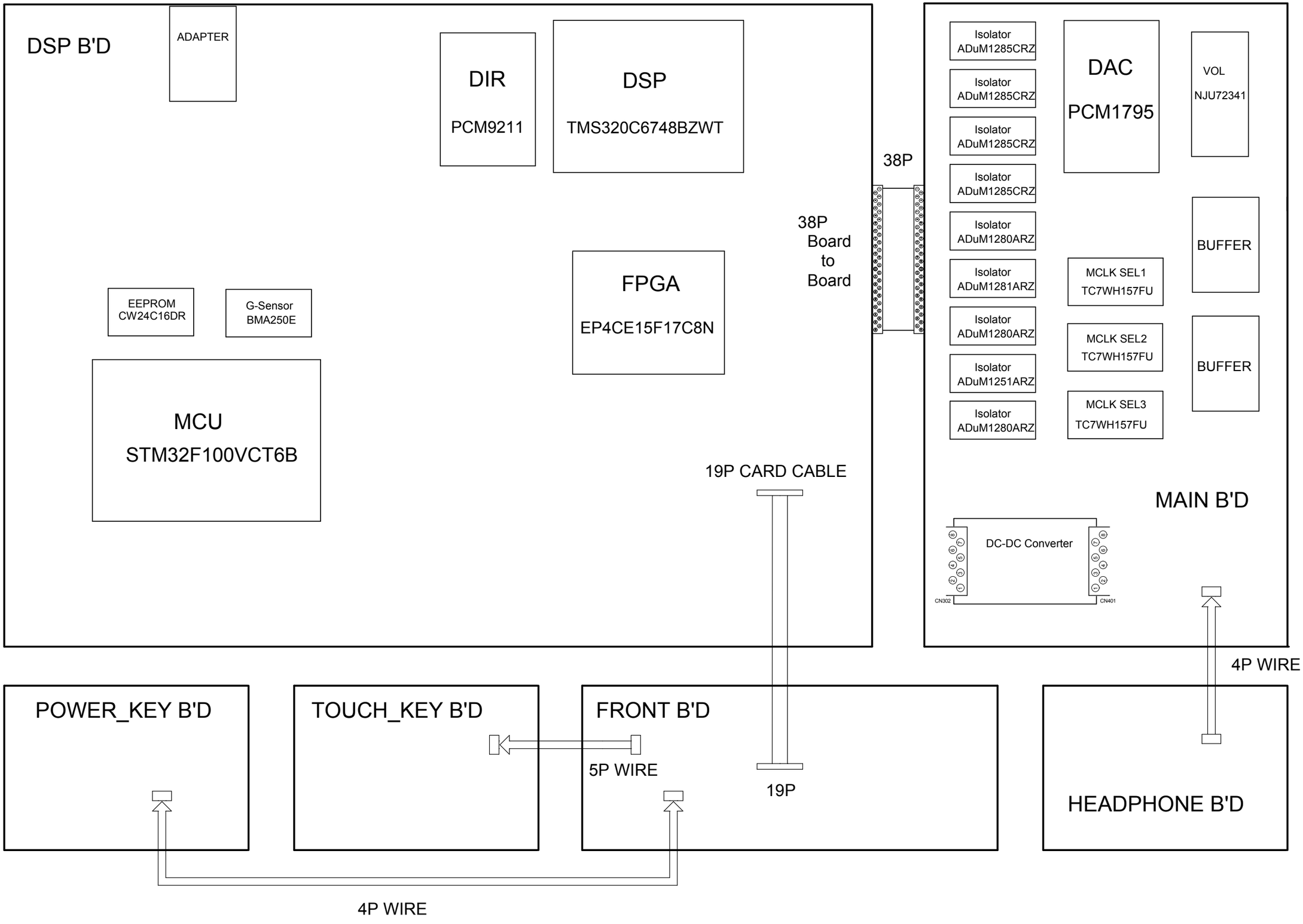
BLOCK DIAGRAM



POWER BLOCK DIAGRAM



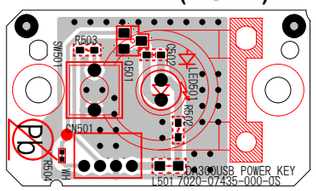
WIRING DIAGRAM



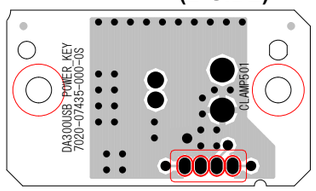
PRINTED CIRCUIT BOARDS

Lead-free Solder
When soldering, use the Lead-free Solder (Sn-Ag-Cu).

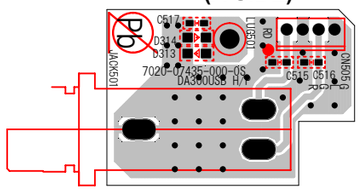
POWER KEY (A SIDE)



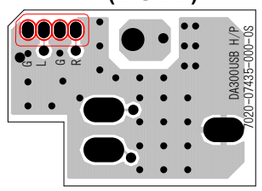
POWER KEY (B SIDE)



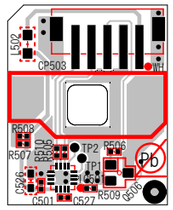
H/P (A SIDE)



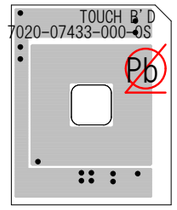
H/P (B SIDE)



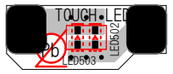
TOUCH (A SIDE)



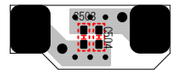
TOUCH (B SIDE)



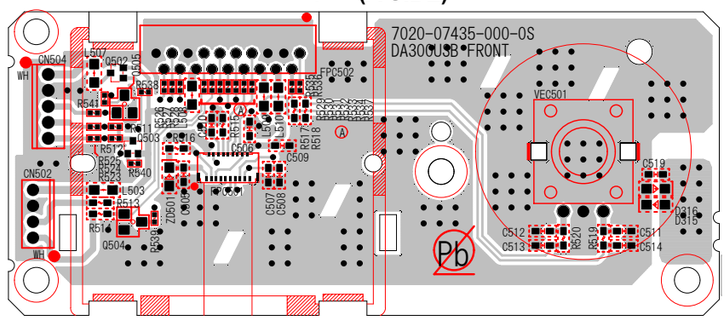
TOUH LED (A SIDE)



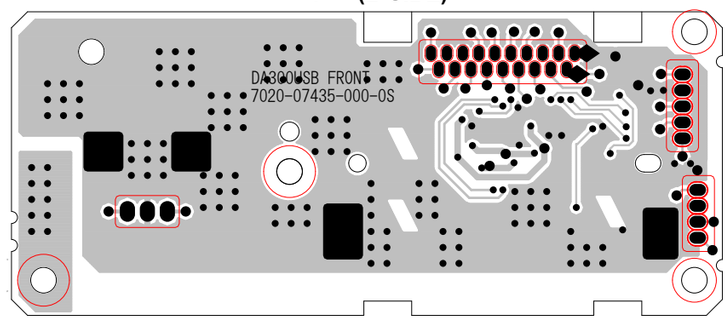
TOUH LED (B SIDE)



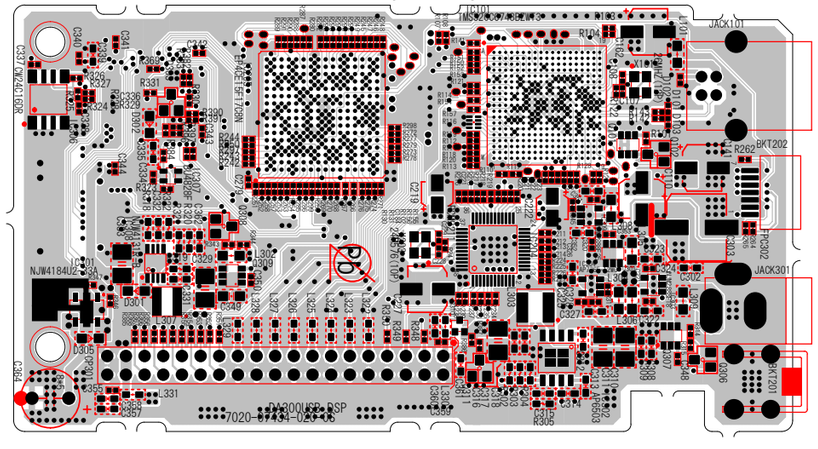
FRONT (A SIDE)



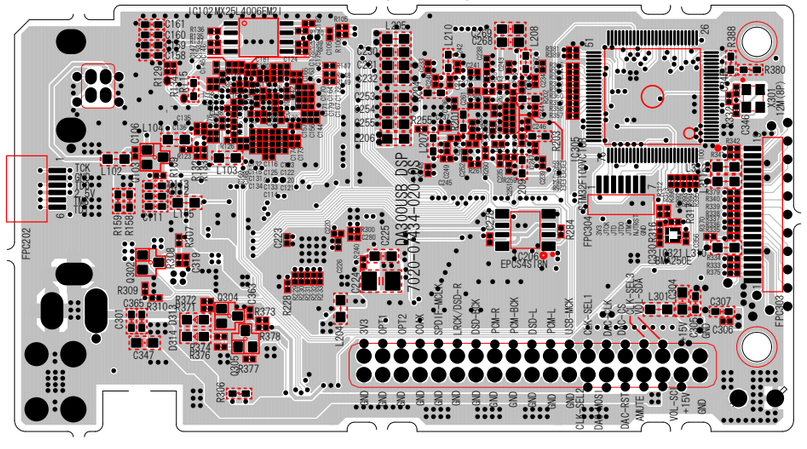
FRONT (B SIDE)



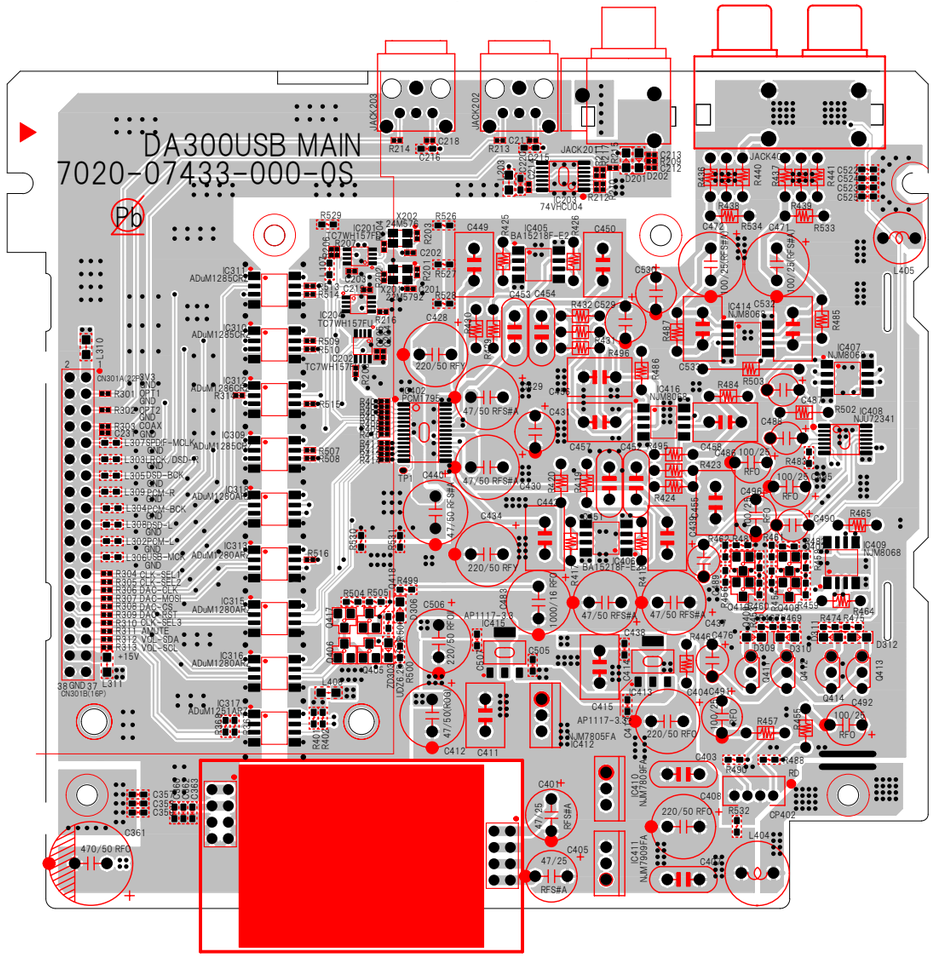
DSP (A SIDE)



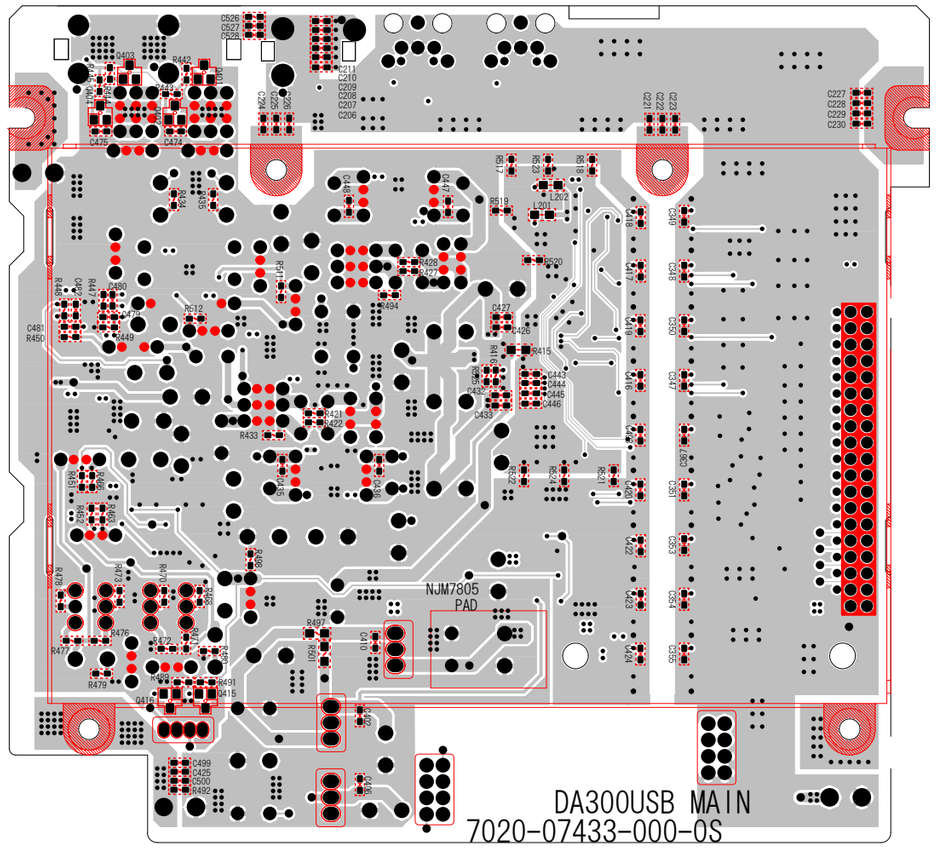
DSP (B SIDE)



MAIN (A SIDE)

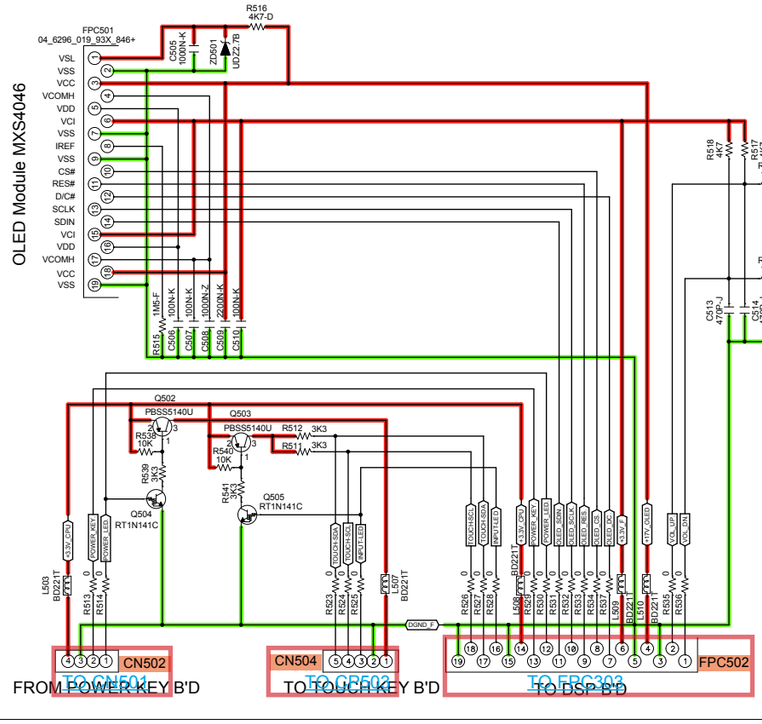


MAIN (B SIDE)

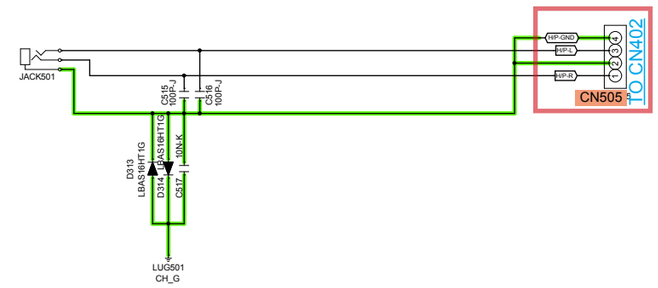


DA300USB FRONT

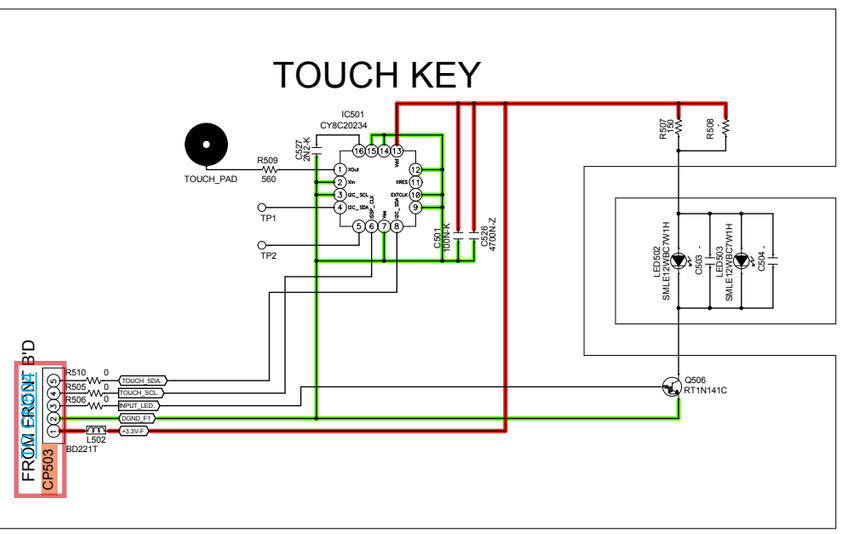
FRONT



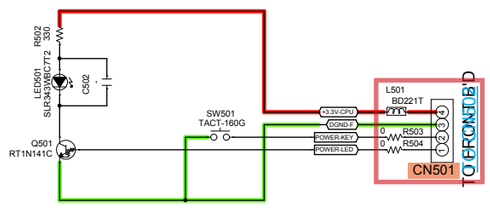
HEADPHONE



TOUCH KEY



POWER KEY

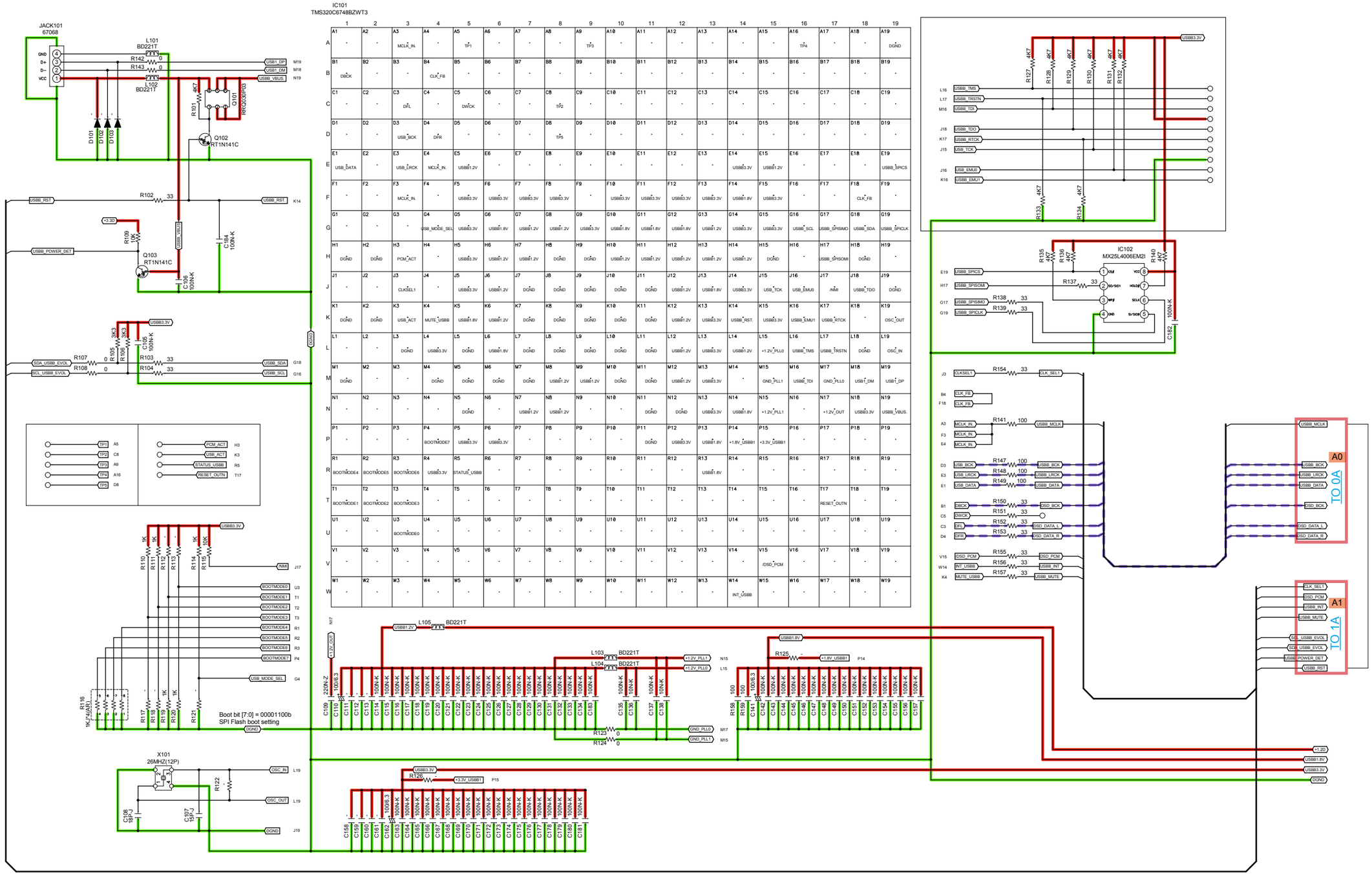


GND LINE POWER+ LINE POWER- LINE SIGNAL

SCHEMATIC DIAGRAMS (1/6)

FRONT / POWER / H/P / TOUCH (1/1)

DA300USB DSP - DSP(1/3)



SCHEMATIC DIAGRAMS (2/6)

DSP (1/3)

GND LINE POWER+ LINE POWER- LINE SIGNAL

DA300USB DSP - DIR & FPGA (2/3)

DSP Sheet

MCU Sheet

TO A0 — 0A — DSD_BCK, DSD_DATA_L, DSD_DATA_R, USBB_MCLK, USBB_DATA, USBB_LRCK, USBB_BCK

TO A1 — 1A — CLK_SEL1, DSD_PCM, USBB_INT, USBB_MUTE, SCL_USBB_EVOL, SDA_USBB_EVOL, USBB_POWER_DET, USBB_RST

TO 2A — A2 — COAX_SPDIF, OPT_SPDIF1, OPT_SPDIF2

TO 3A — A3 — DIR_DO, DIR_DI, DIR_CL, DIR_CH, DIR_RST, DIR_RERR, DIR_INT, CLK_SEL1, DSD_PCM, USBB_INT, USBB_MUTE, SCL_USBB_EVOL, SDA_USBB_EVOL, USBB_POWER_DET, USBB_RST, FPGA_RST, FPGA_MUTE, CLK_SEL2, FS-STS-A0, FS-STS-A1, VER_CONT, FS-STS-B0, FS-STS-B1, FS-STS-B2, EMPHASIS, MUTE

TO 4A — A4 — TP6, TP7, TP8, TP9, TP10

TO 5A — A5 — D_BCK, DSD_L, PCM_DATA_R, SPDIF_MCK_O, PCM_BCK, LRCK/DSD_DATA_R, PCM_DATA_L, USBB_MCLK

IC204 PCM9211 — L204 BD2211T — X203 24M576(10P) — C229 12P — C228 15P — C280 — R241 680 — C227 0.06 — C226 4N7-K — R240 680 — C225 — C224 68N-X2R — C219 10/16 — C220 100N-K — R215 0 — R216 10K — R217 10K — R218 10K — R300 0 — R301 10K — C222 10/16 — C223 100N-K — C221 10/16 — R211–R214 33 — R224–R227 10K — R238–R245 10K — R237 22 — R246 0 — R247 0 — C_SEL, COAX_SPDIF, DIR_RST, DIR_CE, DIR_CL, DIR_DI, DIR_DO, SPDIF_MCK, DIR_BCK, DIR_LRCK, DIR_DATA, DIR_RERR, DIR_INT, OPT_SPDIF1, OPT_SPDIF2

IC205 EP4CE15F17C8N — EPCS4SI8N — C278 100N-K — R284 33 — R256–R259 0 — R260 10K — R261 0 — R262 1K — R265 1K — R264 1K — C279 100N-K — R242–R255 33 — R285 33 — R286 33 — R299 33

R266–R278 33 — R298 33 — SPDIF_MCK, DIR_DATA, DIR_LRCK, DIR_BCK, PCM_DATA_L, PCM_DATA_R, LRCK/DSD_DATA_R, PCM_BCK, D_BCK, DSD_L, SPDIF_MCK_O, USBB_MCLK, DSD_BCK, DSD_DATA_L, DSD_DATA_R

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	A1 FPGA3.3V	A2 FS_STS_A0	A3 FS_STS_A1	A4 FS_STS_B1	A5 FS_STS_B0	A6 .	A7 .	A8 DGND	A9 DGND	A10 .	A11 .	A12 .	A13 .	A14 .	A15 .	A16 FPGA3.3V
B	B1 RESET	B2 DGND	B3 .	B4 FS_STS_B2	B5 .	B6 .	B7 .	B8 DGND	B9 DGND	B10 .	B11 .	B12 .	B13 .	B14 .	B15 DGND	B16 TEST13
C	C1 ASDO	C2 MUTE	C3 .	C4 FPGA3.3V	C5 DGND	C6 .	C7 FPGA3.3V	C8 .	C9 .	C10 FPGA3.3V	C11 .	C12 DGND	C13 FPGA3.3V	C14 .	C15 .	C16 .
D	D1 VERCONT.	D2 NCSO	D3 .	D4 1.2V_PLL3	D5 .	D6 .	D7 DGND	D8 .	D9 .	D10 DGND	D11 .	D12 .	D13 1.2V_PLL2	D14 .	D15 .	D16 TEST15
E	E1 DGND	E2 DGND	E3 FPGA3.3V	E4 DGND	E5 DGNDA3	E6 .	E7 .	E8 .	E9 .	E10 .	E11 .	E12 DGNDA2	E13 DGND	E14 FPGA3.3V	E15 DGND	E16 DGND
F	F1 EMPHASIS.	F2 RERR	F3 CLK_SEL2	F4 NSTATUS	F5 FPGA2.5V	F6 DGND	F7 FPGA1.2V	F8 .	F9 .	F10 DGND	F11 FPGA1.2V	F12 FPGA2.5V	F13 .	F14 TEST14	F15 TEST12	F16 TEST11
G	G1 DSD_PCM_SEL	G2 USBB-MUTE	G3 FPGA3.3V	G4 DGND	G5 .	G6 FPGA1.2V	G7 FPGA1.2V	G8 FPGA1.2V	G9 FPGA1.2V	G10 FPGA1.2V	G11 .	G12 MSEL2	G13 DGND	G14 FPGA3.3V	G15 .	G16 .
H	H1 DCLK	H2 DATA0	H3 TCK	H4 TDI	H5 NCONFIG	H6 FPGA1.2V	H7 DGND	H8 DGND	H9 DGND	H10 DGND	H11 FPGA1.2V	H12 MSEL1	H13 MSEL0	H14 CONF_DONE	H15 DGND	H16 DGND
J	J1 I2S_LRCK	J2 I2S_BCK	J3 NCE	J4 TDO	J5 TMS	J6 FPGA1.2V	J7 DGND	J8 DGND	J9 DGND	J10 DGND	J11 DGND	J12 .	J13 .	J14 .	J15 .	J16 TEST10
K	K1 I2S_DATA	K2 .	K3 FPGA3.3V	K4 DGND	K5 .	K6 .	K7 FPGA1.2V	K8 DGND	K9 .	K10 .	K11 FPGA1.2V	K12 .	K13 DGND	K14 FPGA3.3V	K15 TEST9	K16 TEST8
L	L1 .	L2 .	L3 .	L4 .	L5 FPGA2.5V	L6 .	L7 .	L8 .	L9 .	L10 .	L11 .	L12 FPGA2.5V	L13 .	L14 .	L15 TEST7	L16 TEST6
M	M1 SPDIF-MCLK	M2 MCLK	M3 FPGA3.3V	M4 DGND	M5 DGNDA1	M6 .	M7 .	M8 .	M9 .	M10 .	M11 .	M12 DGNDA4	M13 DGND	M14 FPGA3.3V	M15 DGND	M16 DGND
N	N1 .	N2 .	N3 .	N4 1.2V_PLL1	N5 .	N6 AMUTE_O	N7 DGND	N8 .	N9 .	N10 DGND	N11 .	N12 .	N13 1.2V_PLL4	N14 TEST1	N15 .	N16 TEST5
P	P1 DSD-DATA-L	P2 DSD-DATA-R	P3 .	P4 FPGA3.3V	P5 DGND	P6 .	P7 FPGA3.3V	P8 .	P9 .	P10 FPGA3.3V	P11 .	P12 DGND	P13 FPGA3.3V	P14 .	P15 TEST2	P16 TEST3
R	R1 DSD-BCK	R2 DGND	R3 DSD-L	R4 PCM-DATA-R	R5 LRCK/DSD-DATA-R	R6 .	R7 .	R8 DGND	R9 DGND	R10 .	R11 .	R12 .	R13 .	R14 .	R15 DGND	R16 TEST4
T	T1 FPGA3.3V	T2 PCM-DATA-L	T3 .	T4 PCM-BCK	T5 DSD-BCK-O	T6 .	T7 SPDIF-MCLK-O	T8 DGND	T9 DGND	T10 .	T11 .	T12 .	T13 .	T14 .	T15 .	T16 FPGA3.3V

IC205
EP4CE15F17C8N

DGND, +3.3D, +1.2D, USBB1.8V, USBB3.3V, FPGA3.3V, FPGA2.5V, FPGA1.2V

L205 BD221T — C230–C252 100N-K, 1000N-K

L206 BD221T — C253–C273 100N-K, 1000N-K

L207–L210 BD121T — 1.2V_PLL1 N4, 1.2V_PLL2 D13, 1.2V_PLL3 D4, 1.2V_PLL4 N13

R201–R204 0 — DGNDA1 M5, DGNDA2 E12, DGNDA3 E5, DGNDA4 M12

R280–R283 0 — R287–R291 33 — R292–R296 33 — R245–R249 33 — R300 0 — R301 10K

G12 MSEL2, H12 MSEL1, H13 MSEL0, H14 CONF_DONE

F16 TEST11, F15 TEST12, B16 TEST13, F14 TEST14, D16 TEST15

L16 TEST6, L15 TEST7, K16 TEST8, K15 TEST9, J16 TEST10

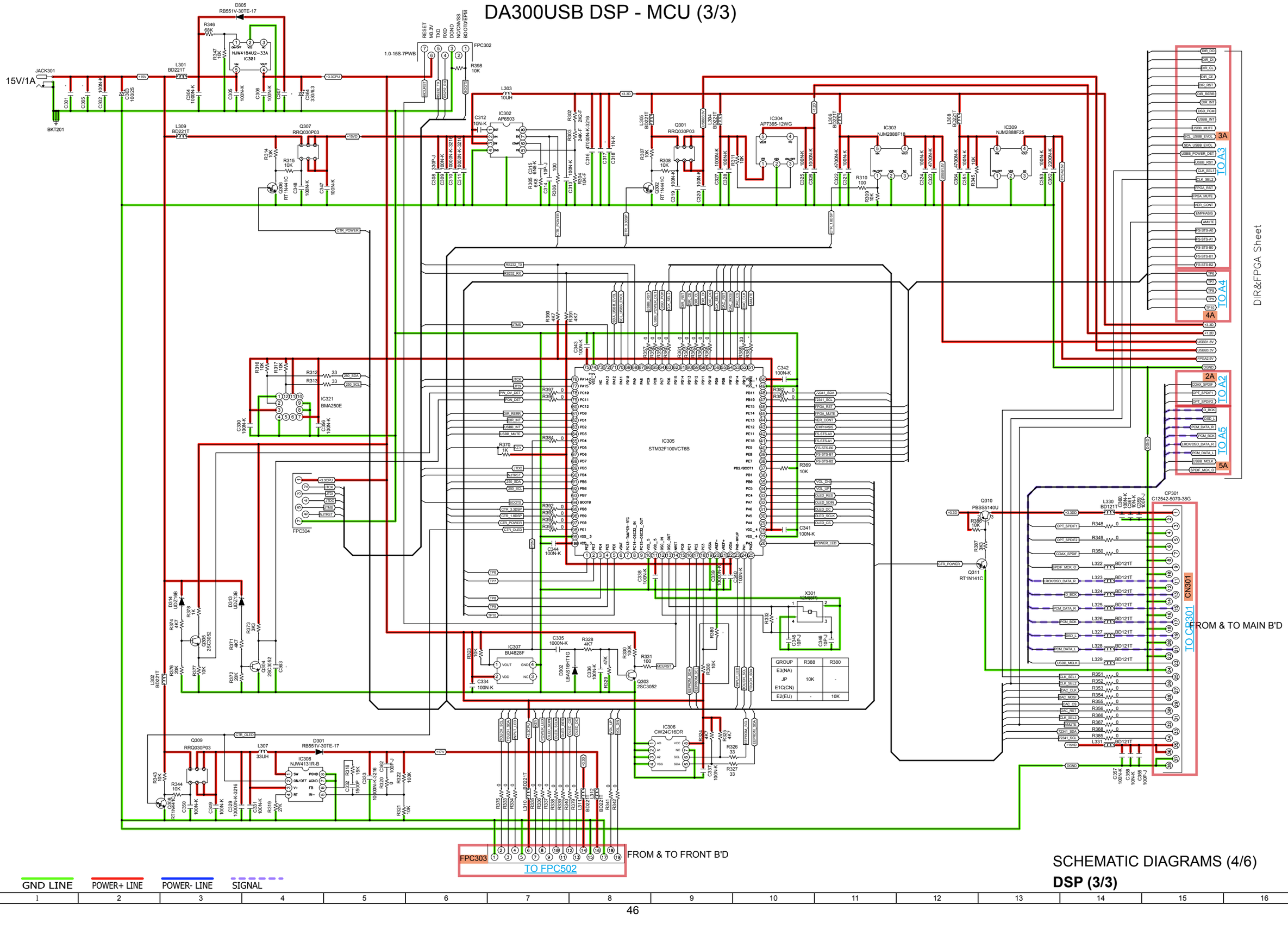
N14 TEST1, P15 TEST2, P16 TEST3, R16 TEST4, N16 TEST5

SCHEMATIC DIAGRAMS (3/6)

DSP (2/3)

GND LINE — POWER+ LINE — POWER- LINE — SIGNAL

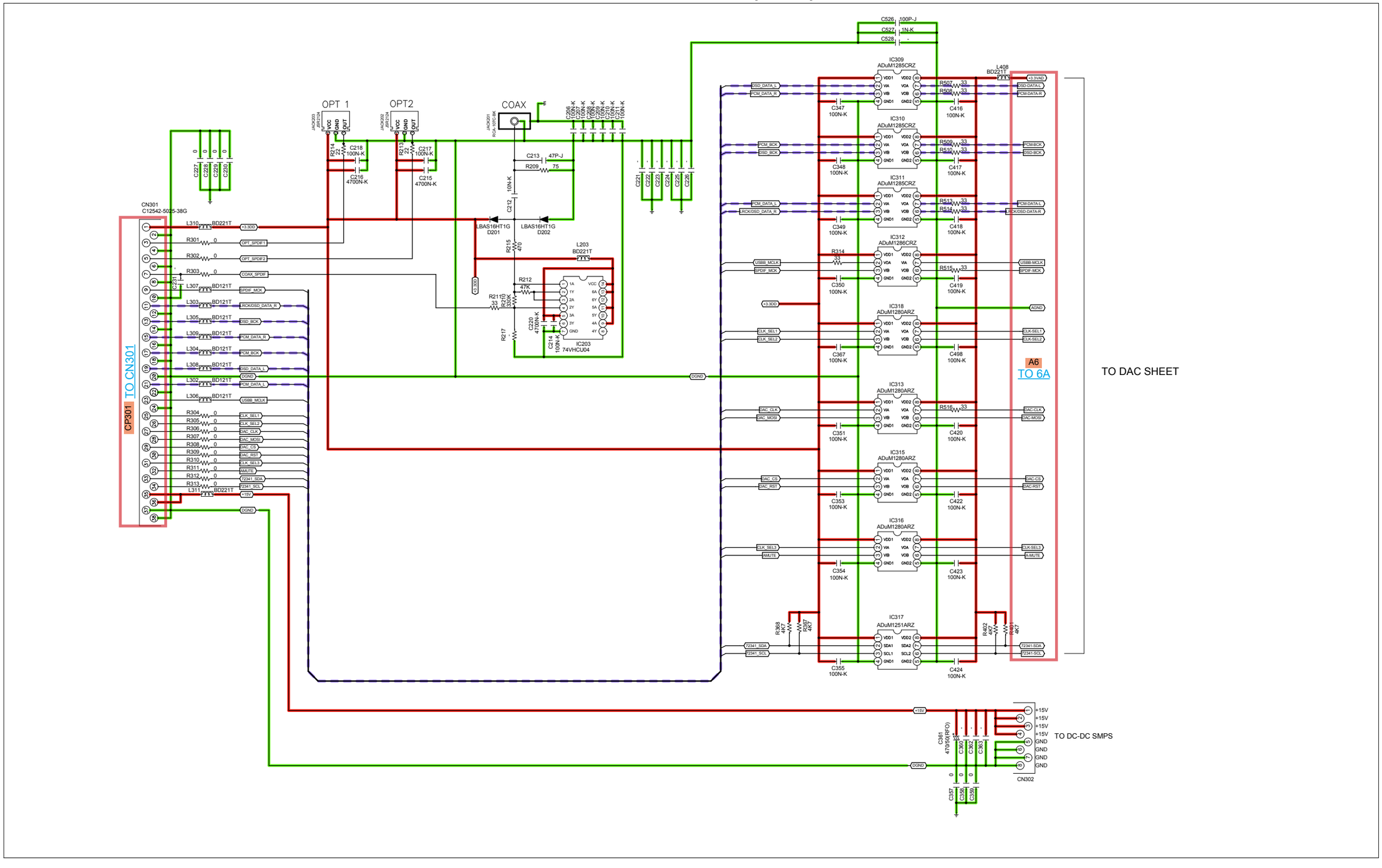
DA300USB DSP - MCU (3/3)



SCHEMATIC DIAGRAMS (4/6)

DSP (3/3)

DA300USB MAIN (1/2)

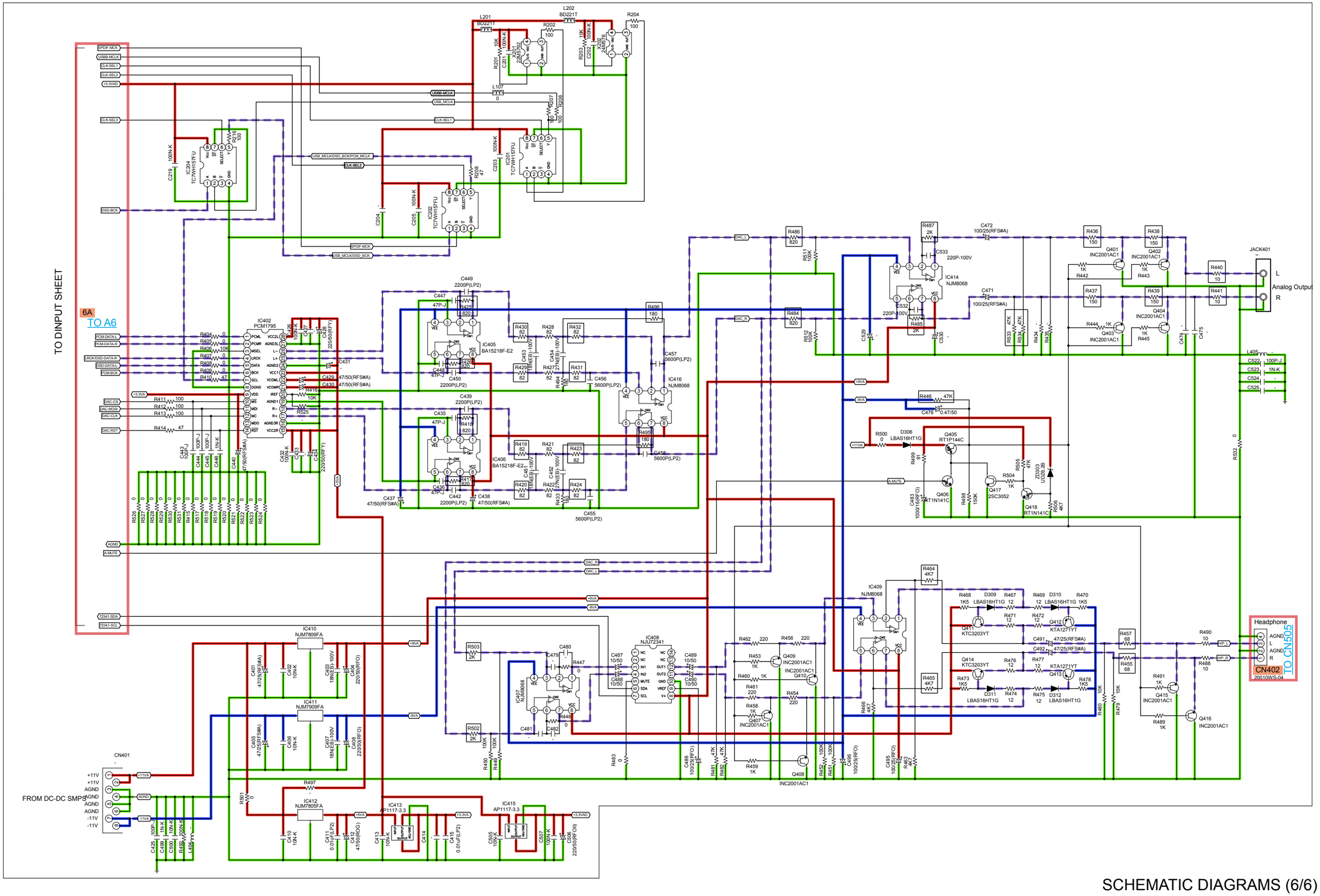


GND LINE POWER+ LINE POWER- LINE SIGNAL

SCHEMATIC DIAGRAMS (5/6)

MAIN (1/2)

DA300USB MAIN (2/2)



SCHEMATIC DIAGRAMS (6/6)

MAIN (2/2)

GND LINE POWER+ LINE POWER- LINE SIGNAL

EXPLODED VIEW ⚠2

Please see the last chapter for the part list.

＊To replace the top/bottom panel, order the following parts.
When assembling these parts, refer to the notes ＊1-＊5 shown in the diagrams.

TOP PANEL

Ref-No.	Part No.	Part Name
9	963456100100D	TAPE WEIGHT
11	963446100820D	PLATE WEIGHT_TOP
12	963403100940D	COVER TOP (E2, E1C, JP)
12	963403100960D	COVER TOP (E3)
13	42141002500AD	BADGE DENON
20	963456100110D	LABEL HOOK

BOTTOM PANEL

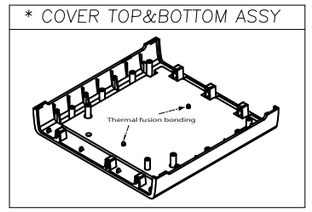
Ref-No.	Part No.	Part Name
7	963401100970D	COVER BOTTOM (E2, E1C, JP)
7	963401100980D	COVER BOTTOM (E3)
9	963456100100D	TAPE WEIGHT
10	963446100810D	PLATE WEIGHT_BOTTOM

＊1 Note for replacing parts
Put the label (Ref-No.20) on the end part of the four hooks on the COVER TOP.

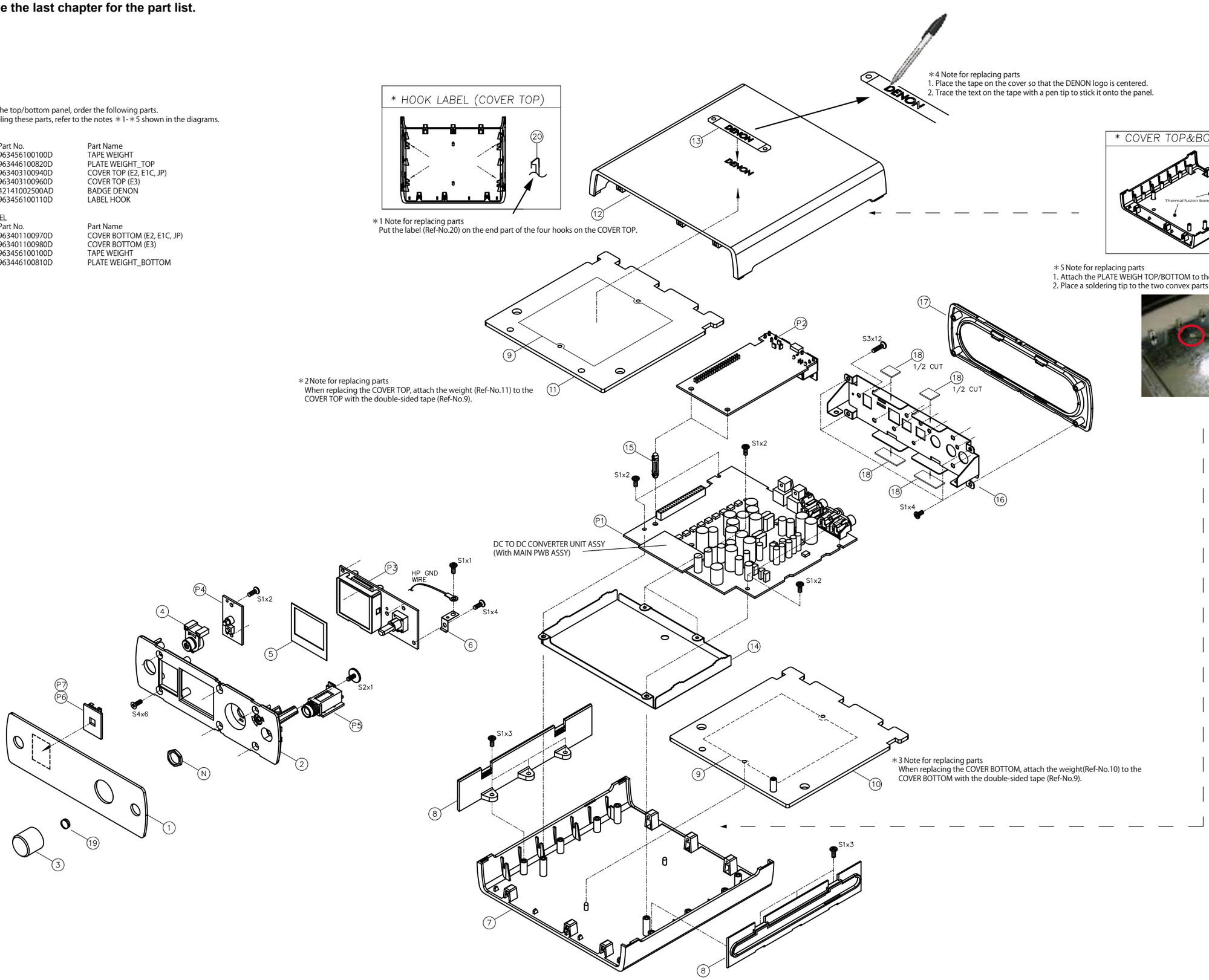
＊2 Note for replacing parts
When replacing the COVER TOP, attach the weight (Ref-No.11) to the COVER TOP with the double-sided tape (Ref-No.9).

＊3 Note for replacing parts
When replacing the COVER BOTTOM, attach the weight(Ref-No.10) to the COVER BOTTOM with the double-sided tape (Ref-No.9).

＊4 Note for replacing parts
1. Place the tape on the cover so that the DENON logo is centered.
2. Trace the text on the tape with a pen tip to stick it onto the panel.



＊5 Note for replacing parts
1. Attach the PLATE WEIGH TOP/BOTTOM to the COVER TOP/BOTTOM.
2. Place a soldering tip to the two convex parts to melt the top a little.



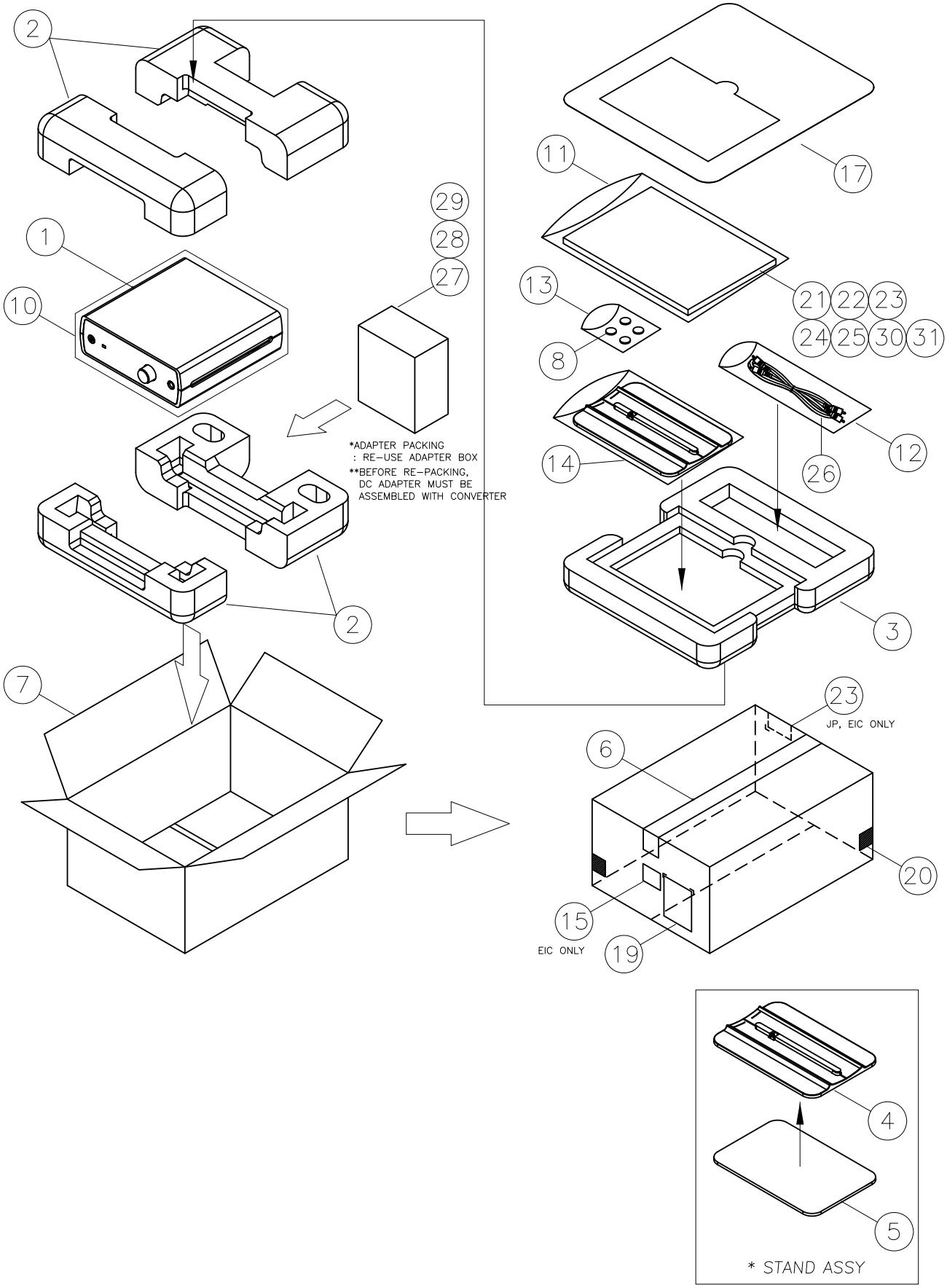
WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

Personal notes:

Personal notes:

PACKING VIEW

Please refer to the last chapter for the part list.

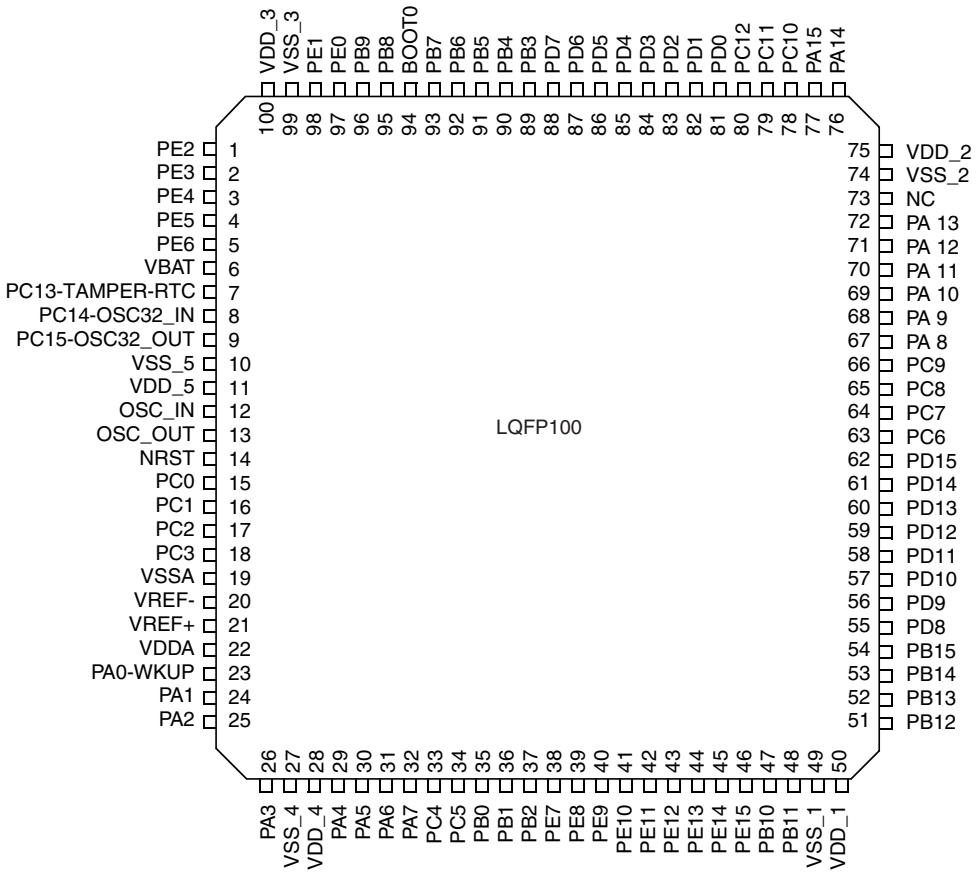


SEMICONDUCTORS

Only major semiconductors are shown, general semiconductors etc. are omitted to list.
The semiconductor which described a detailed drawing in a schematic diagram are omitted to list.

1. IC's

STM32F100VCT6B (IC305)



STM32F100VCT6B Terminal Function

Pin No.	port Name	Type	Initial	Signal Name
1	PE2	-		TP6
2	PE3	-		TP7
3	PE4	-		TP8
4	PE5	-		TP9
5	PE6	-		TP10
6	VBAT	-		NC
7	PC13-TAMPER-RTC	-		NC
8	PC14-OSC32_IN	I		NC
9	PC15-OSC32_OUT	O	L	NC
10	VSS_5	-		GND
11	VDD_5	-		3.3V
12	OSC_IN	I		OSC_IN
13	OSC_OUT	O		OSC_OUT
14	NRST	I		MCURST
15	PC0	-		NC
16	PC1	I/O		EEPROM_SDA
17	PC2	O	H	EEPROM_SCL
18	PC3	-		NC
19	VSSA	-		GND
20	VREF-	-		GND
21	VREF+	-		3.3V
22	VDDA	-		3.3V
23	PA0-WKUP	0	L	INPUT_LED
24	PA1	O	L	TOUCH_SCL
25	PA2	I/O		TOUCH_SDA

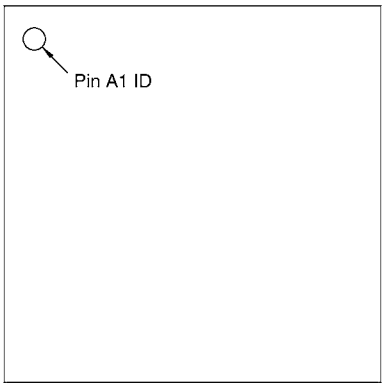
Pin No.	port Name	Type	Initial	Signal Name
26	PA3	O	L	POWER_LED
27	VSS_4	-		GND
28	VDD_4	-		3.3V
29	PA4	O	L	OLED_CS
30	PA5	O	L	OLED_SCLK
31	PA6	O	L	OLED_DC
32	PA7	O	L	OLED_SDIN
33	PC4	O	L	OLED_RES
34	PC5	I		VOL_UP
35	PB0	I		VOL_DN
36	PB1	-		NC
37	PB2	I		BOOT1
38	PE7	I/O	L	FS-STS-B2
39	PE8	O	L	FS-STS-B1
40	PE9	O	L	FS-STS-B0
41	PE10	O	L	FS-STS-A1
42	PE11	I/0	L	FS-STS-A0
43	PE12	O	L	EMPHASIS
44	PE13	0	L	VER_CONT
45	PE14	O	H	FPGA_MUTE
46	PE15	O	L	FPGA_RST
47	PB10	O	L	72341_SCL
48	PB11	I/O		72341_SDA
49	VSS_1	-		GND
50	VDD_1	-		3.3V
51	PB12	O	H	AMUTE

Pin No.	port Name	Type	Initial	Signal Name
52	PB13	O	L	DAC_CLK
53	PB14	O	L	DAC_CS
54	PB15	O	L	DAC_MOSI
55	PD8	O	L	DAC_RST
56	PD9	O	L	CLK_SEL3
57	PD10	I		DIR_DO
58	PD11	O	L	DIR_DI
59	PD12	O	L	DIR_CL
60	PD13	O	L	DIR_CE
61	PD14	O	L	DIR_RST
62	PD15	-		NC
63	PC6	O	L	CLK_SEL2
64	PC7	I		DSD_PCM
65	PC8	I		USBB_POWER_ DET
66	PC9	O	L	USBB_RST
67	PA8	-		NC
68	PA9	O	L	RS232_TX
69	PA10	I		RS232_RX
70	PA11	O	L	SCL_USBB_EVOL
71	PA12	I/O		SDA_USBB_ EVOL
72	PA13	I		JTMS
73	NC	-		NC
74	VSS_2	-		GND
75	VDD_2	-		3.3V

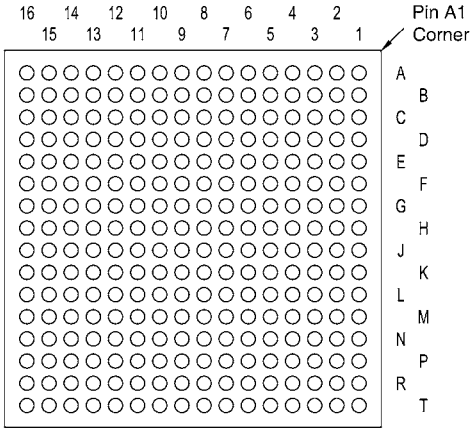
Pin No.	port Name	Type	Initial	Signal Name
76	PA14	I		JTCK
77	PA15	I		JTDI
78	PC10	I		PW_OV_DET
79	PC11	I		PDN_DET
80	PC12	-		NC
81	PD0	I		DIR_RERR
82	PD1	I		DIR_INT
83	PD2	I		USBB_INT
84	PD3	I		USBB_MUTE
85	PD4	I		PDN
86	PD5	I		KEY
87	PD6	-		NC
88	PD7	-		NC
89	PB3	O	L	JTDO
90	PB4	I		NJTRST
91	PB5	I/O		250_SDA
92	PB6	O	H	250_SCL
93	PB7	-		NC
94	BOOT0	I		BOOT0
95	PB8	O	L	CTR_3.3DSP
96	PB9	O	L	CTR_1.8DSP
97	PE0	O	L	CTR_POWER
98	PE1	O	L	CTR_OLED
99	VSS_3	-		GND
100	VDD_3	-		3.3V

EP4CE15F17C8N (IC205)

TOP VIEW



BOTTOM VIEW



EP4CE15F17C8N Terminal Function

Pin No.	Location	Dir.	Pin Name
1	A1	POWER	3.3V
2	A2	INPUT	FS_STS_A0
3	A3	INPUT	FS_STS_A1
4	A4	bidir	FS_STS_B1
5	A5	bidir	FS_STS_B0
6	A6	OPEN	GND*
7	A7	OPEN	GND*
8	A8	OPEN	GND+
9	A9	OPEN	GND+
10	A10	OPEN	GND*
11	A11	OPEN	GND*
12	A12	OPEN	GND*
13	A13	OPEN	GND*
14	A14	OPEN	GND*
15	A15	OPEN	GND*
16	A16	POWER	3.3V
17	B1	INPUT	DAC_RST_IN
18	B2	GND	GND
19	B3	OPEN	GND*
20	B4	bidir	FS_STS_B2
21	B5	OPEN	GND*
22	B6	OPEN	GND*
23	B7	OPEN	GND*
24	B8	OPEN	GND+
25	B9	OPEN	GND+
26	B10	OPEN	GND*
27	B11	OPEN	GND*
28	B12	OPEN	GND*
29	B13	OPEN	GND*
30	B14	OPEN	GND*
31	B15	GND	GND
32	B16	OUTPUT	TEST13_O
33	C1	INPUT	DATA
34	C2	INPUT	MUTE
35	C3	OPEN	GND*
36	C4	POWER	3.3V
37	C5	GND	GND
38	C6	OPEN	GND*
39	C7	POWER	3.3V
40	C8	OPEN	GND*
41	C9	OPEN	GND*
42	C10	POWER	3.3V
43	C11	OPEN	GND*
44	C12	GND	GND
45	C13	POWER	3.3V
46	C14	OPEN	GND*
47	C15	OPEN	GND*
48	C16	OPEN	GND*
49	D1	INPUT	FPGA_VER_CONT

Pin No.	Location	Dir.	Pin Name
50	D2	INPUT	nCE_nCSO
51	D3	OPEN	GND*
52	D4	POWER	1.2V
53	D5	OPEN	GND*
54	D6	OPEN	GND*
55	D7	GND	GND
56	D8	OPEN	GND*
57	D9	OPEN	GND*
58	D10	GND	GND
59	D11	OPEN	GND*
60	D12	OPEN	GND*
61	D13	POWER	1.2V
62	D14	OPEN	GND*
63	D15	OPEN	GND*
64	D16	OUTPUT	TEST15_O
65	E1	OPEN	GND+
66	E2	GND	GND
67	E3	POWER	3.3V
68	E4	GND	GND
69	E5	GND	GNDA3
70	E6	OPEN	GND*
71	E7	OPEN	GND*
72	E8	OPEN	GND*
73	E9	OPEN	GND*
74	E10	OPEN	GND*
75	E11	OPEN	GND*
76	E12	GND	GNDA2
77	E13	GND	GND
78	E14	POWER	3.3V
79	E15	OPEN	GND+
80	E16	OPEN	GND+
81	F1	bidir	EMPHASIS
82	F2	INPUT	DIR_ERROR
83	F3	INPUT	CLK_SEL2
84	F4	OPEN	nSTATUS
85	F5	POWER	2.5V
86	F6	GND	GND
87	F7	POWER	1.2V
88	F8	OPEN	GND*
89	F9	OPEN	GND*
90	F10	GND	GND
91	F11	POWER	1.2V
92	F12	POWER	2.5V
93	F13	OPEN	GND*
94	F14	OUTPUT	TEST14_O
95	F15	OUTPUT	TEST12_O
96	F16	OUTPUT	TEST11_O
97	G1	INPUT	USBB_DSD_PCM
98	G2	INPUT	USB-B_MUTE

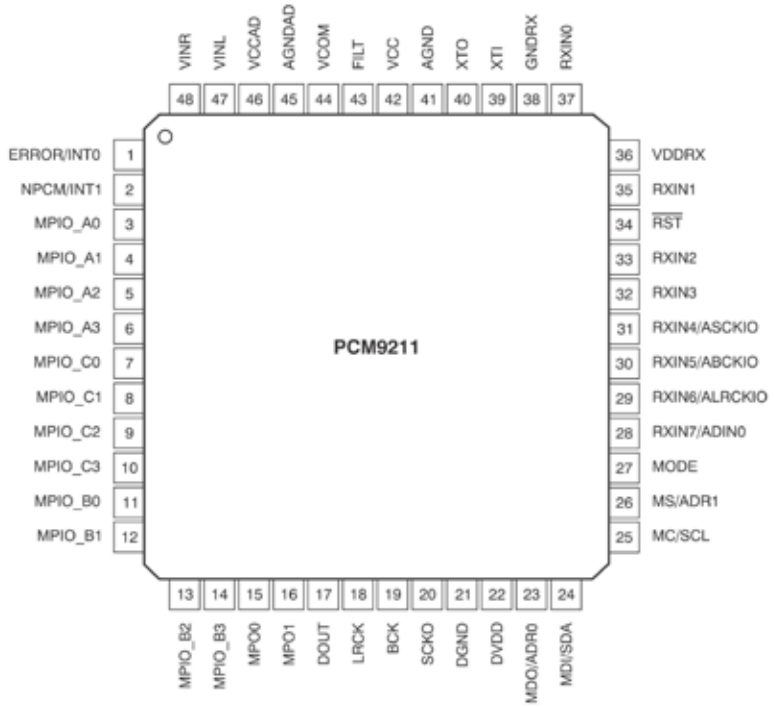
Pin No.	Location	Dir.	Pin Name
99	G3	POWER	3.3V
100	G4	GND	GND
101	G5	OPEN	GND*
102	G6	POWER	1.2V
103	G7	POWER	1.2V
104	G8	POWER	1.2V
105	G9	POWER	1.2V
106	G10	POWER	1.2V
107	G11	OPEN	GND*
108	G12	INPUT	MSEL2(GND)
109	G13	GND	GND
110	G14	POWER	3.3V
111	G15	OPEN	GND*
112	G16	OPEN	GND*
113	H1	OUTPUT	DCLK
114	H2	INPUT	DATA0
115	H3	INPUT	TCK
116	H4	INPUT	TDI
117	H5	INPUT	nCONFIG
118	H6	POWER	1.2V
119	H7	GND	GND
120	H8	GND	GND
121	H9	GND	GND
122	H10	GND	GND
123	H11	POWER	1.2V
124	H12	INPUT	MSEL1(2.5V)
125	H13	GND	MSEL0
126	H14	OPEN	CONF_DONE
127	H15	GND	GND
128	H16	GND	GND
129	J1	INPUT	DIR_LRCK_IN
130	J2	INPUT	DIR_BCK_IN
131	J3	GND	nCE
132	J4	OUTPUT	TDO
133	J5	INPUT	TMS
134	J6	POWER	1.2V
135	J7	GND	GND
136	J8	GND	GND
137	J9	GND	GND
138	J10	GND	GND
139	J11	GND	GND
140	J12	OPEN	GND*
141	J13	OPEN	GND*
142	J14	OPEN	GND*
143	J15	OPEN	GND*
144	J16	INPUT	TEST10_IO
145	K1	INPUT	DIR_DATA_IN
146	K2	OPEN	GND*
147	K3	POWER	3.3V
148	K4	GND	GND
149	K5	OPEN	GND*
150	K6	OPEN	GND*
151	K7	POWER	1.2V
152	K8	GND	GND
153	K9	OPEN	GND*
154	K10	OPEN	GND*
155	K11	POWER	1.2V
156	K12	OPEN	GND*
157	K13	GND	GND
158	K14	POWER	3.3V
159	K15	INPUT	TEST9_IO
160	K16	INPUT	TEST8_IO
161	L1	OPEN	GND*
162	L2	OPEN	GND*
163	L3	OPEN	GND*
164	L4	OPEN	GND*
165	L5	POWER	2.5V
166	L6	OPEN	GND*

Pin No.	Location	Dir.	Pin Name
167	L7	OPEN	GND*
168	L8	OPEN	GND*
169	L9	OPEN	GND*
170	L10	OPEN	GND*
171	L11	OPEN	GND*
172	L12	POWER	2.5V
173	L13	OPEN	GND*
174	L14	OPEN	GND*
175	L15	INPUT	TEST7_IO
176	L16	INPUT	TEST6_IO
177	M1	INPUT	SPDIF_MCLK
178	M2	INPUT	USBB_MCLK
179	M3	POWER	3.3V
180	M4	GND	GND
181	M5	GND	GNDA1
182	M6	OPEN	GND*
183	M7	OPEN	GND*
184	M8	OPEN	GND*
185	M9	OPEN	GND*
186	M10	OPEN	GND*
187	M11	OPEN	GND*
188	M12	GND	GNDA4
189	M13	GND	GND
190	M14	POWER	3.3V
191	M15	OPEN	GND+
192	M16	OPEN	GND+
193	N1	OPEN	GND*
194	N2	OPEN	GND*
195	N3	OPEN	GND*
196	N4	POWER	1.2V
197	N5	OPEN	GND*
198	N6	OUTPUT	A_MUTE_O
199	N7	GND	GND
200	N8	OPEN	GND*
201	N9	OPEN	GND*
202	N10	GND	GND
203	N11	OPEN	GND*
204	N12	OPEN	GND*
205	N13	POWER	1.2V
206	N14	INPUT	TEST1_IN
207	N15	OPEN	GND*
208	N16	INPUT	TEST5_IN
209	P1	INPUT	USBB_DSD_DATA_L
210	P2	INPUT	USBB_DSD_DATA_R
211	P3	OPEN	GND*
212	P4	POWER	3.3V
213	P5	GND	GND
214	P6	OPEN	GND*
215	P7	POWER	3.3V
216	P8	OPEN	GND*
217	P9	OPEN	GND*
218	P10	POWER	3.3V
219	P11	OPEN	GND*
220	P12	GND	GND
221	P13	POWER	3.3V
222	P14	OPEN	GND*
223	P15	INPUT	TEST2_IN
224	P16	INPUT	TEST3_IN
225	R1	INPUT	USBB_DBCK
226	R2	GND	GND
227	R3	OUTPUT	DAC_DSD_DATA_L
228	R4	OUTPUT	DAC_PCM_DATA_R
229	R5	OUTPUT	DAC_WCK_OUT/DSD_R
230	R6	OPEN	GND*
231	R7	OPEN	GND*
232	R8	OPEN	GND+
233	R9	OPEN	GND+

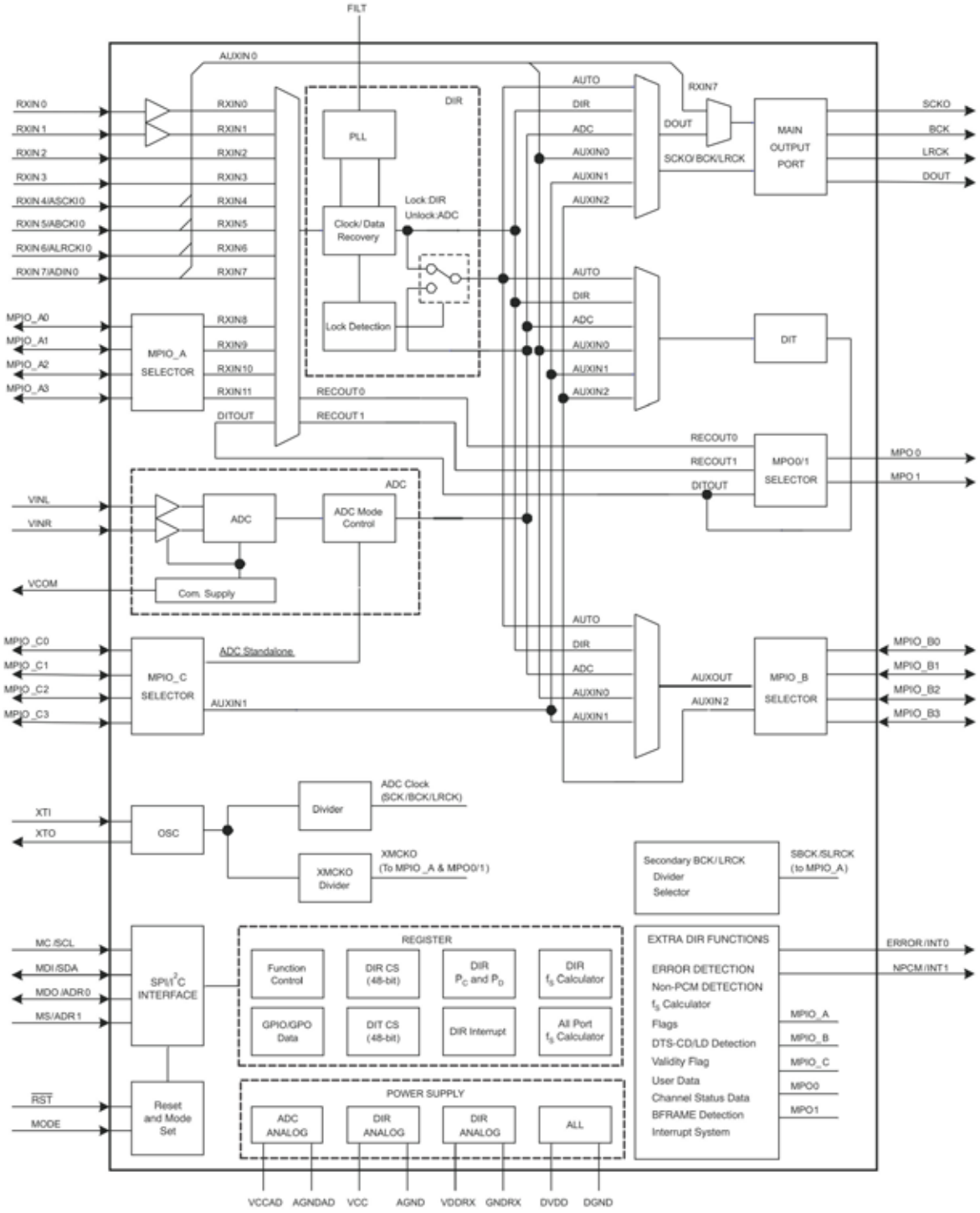
Pin No.	Location	Dir.	Pin Name
234	R10	OPEN	GND*
235	R11	OPEN	GND*
236	R12	OPEN	GND*
237	R13	OPEN	GND*
238	R14	OPEN	GND*
239	R15	GND	GND
240	R16	INPUT	TEST4_IN
241	T1	POWER	3.3V
242	T2	OUTPUT	DAC_PCM_DATA_L
243	T3	OPEN	GND*
244	T4	OUTPUT	DAC_PCM_BCK
245	T5	OUTPUT	DAC_DSD_BCK

Pin No.	Location	Dir.	Pin Name
246	T6	OPEN	GND*
247	T7	OUTPUT	SPDIF_MCK_O
248	T8	OPEN	GND+
249	T9	OPEN	GND+
250	T10	OPEN	GND*
251	T11	OPEN	GND*
252	T12	OPEN	GND*
253	T13	OPEN	GND*
254	T14	OPEN	GND*
255	T15	OPEN	GND*
256	T16	POWER	3.3V

PCM9211 (IC204)



PCM9211 Block Diagram

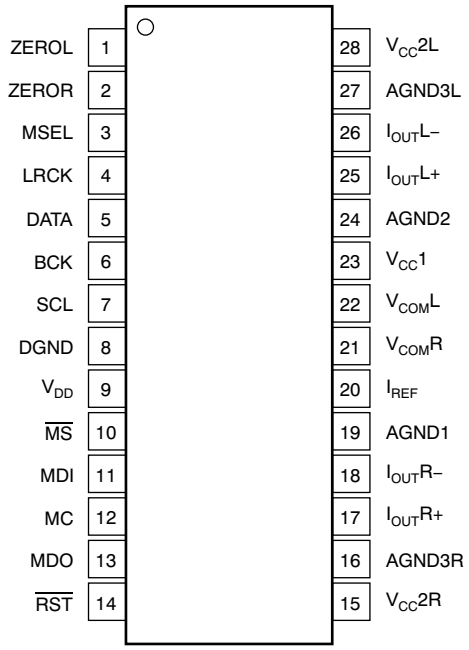


PCM9211 Pin Discriptions

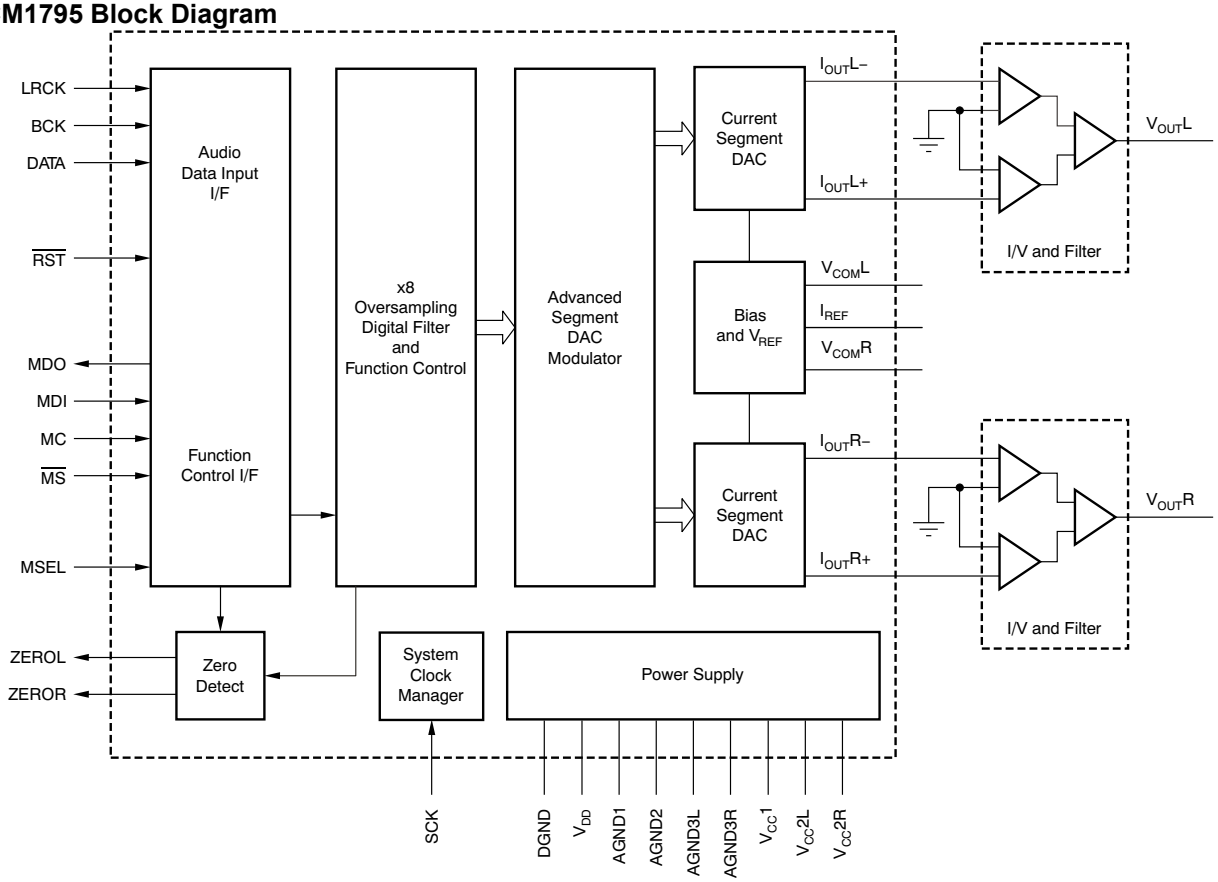
PIN				DESCRIPTION
NO.	NAME	I/O	5-V TOLERANT	
1	ERROR/INT0	O	No	DIR Error detection output / Interrupt0 output
2	NPCM/INT1	O	No	DIR Non-PCM detection output / Interrupt1 output
3	MPIO_A0	I/O	Yes	Multipurpose I/O, Group A(1)
4	MPIO_A1	I/O	Yes	Multipurpose I/O, Group A(1)
5	MPIO_A2	I/O	Yes	Multipurpose I/O, Group A(1)
6	MPIO_A3	I/O	Yes	Multipurpose I/O, Group A(1)
7	MPIO_C0	I/O	Yes	Multipurpose I/O, Group C(1)
8	MPIO_C1	I/O	Yes	Multipurpose I/O, Group C(1)
9	MPIO_C2	I/O	Yes	Multipurpose I/O, Group C(1)
10	MPIO_C3	I/O	Yes	Multipurpose I/O, Group C(1)
11	MPIO_B0	I/O	Yes	Multipurpose I/O, Group B(1)
12	MPIO_B1	I/O	Yes	Multipurpose I/O, Group B(1)
13	MPIO_B2	I/O	Yes	Multipurpose I/O, Group B(1)
14	MPIO_B3	I/O	Yes	Multipurpose I/O, Group B(1)
15	MPO0	O	No	Multipurpose output 0
16	MPO1	O	No	Multipurpose output 1
17	DOUT	O	No	Main output port, serial digital audio data output
18	LRCK	O	No	Main output port, LR clock output
19	BCK	O	No	Main output port, Bit clock output
20	SCKO	O	No	Main output port, System clock output
21	DGND	–	–	Ground, for digital
22	DVDD	–	–	Power supply, 3.3 V (typ.), for digital
23	MDO/ADR0	I/O	Yes	Software control I/F, SPI data output / I^2C slave address setting0(2)
24	MDI/SDA	I/O	Yes	Software control I/F, SPI data input / I^2C data input/output(2)(3)
25	MC/SCL	I	Yes	Software control I/F, SPI clock input / I^2C clock input(2)
26	MS/ADR1	I	Yes	Software control I/F, SPI chip select / I^2C slave address setting1(2)
27	MODE	I	No	Control mode setting, (see the Serial Control Mode section, Control Mode Pin Setting)
28	RXIN7/ADIN0	I	Yes	Biphase signal, input 7 / AUXIN0, serial audio data input(2)
29	RXIN6/ALRCKI0	I	Yes	Biphase signal, input 6 / AUXIN0, LR clock input(2)
30	RXIN5/ABCKI0	I	Yes	Biphase signal, input 5 / AUXIN0, bit clock input(2)
31	RXIN4/ASCKI0	I	Yes	Biphase signal, input 4 / AUXIN0, system clock input(2)
32	RXIN3	I	Yes	Biphase signal, input 3(2)
33	RXIN2	I	Yes	Biphase signal, input 2(2)
34	$\overline{RST}$	I	Yes	Reset Input, active low(2)(4)
35	RXIN1	I	Yes	Biphase signal, input 1, built-in coaxial amplifier
36	VDDRX	–	–	Power supply, 3.3 V (typ.), for RXIN0 and RXIN1.
37	RXIN0	I	Yes	Biphase signal, input 0, built-in coaxial amplifier
38	GNDRX	-	-	Ground, for RXIN
39	XTI	I	No	Oscillation circuit input for crystal resonator or external XTI clock source input(5)
40	XTO	O	No	Oscillation circuit output for crystal resonator
41	AGND	–	–	Ground, for PLL analog
42	VCC	–	–	Power supply, 3.3 V (typ.), for PLL analog
43	FILT	O	No	External PLL loop filter connection terminal; must connect recommended filter
44	VCOM	O	No	ADC common voltage output; must connect external decoupling capacitor
45	AGNDAD	–	–	Ground, for ADC analog
46	VCCAD	–	–	Power supply, 5.0 V (typ.), for ADC analog
47	VINL	I	No	ADC analog voltage input, left channel
48	VINR	I	No	ADC analog voltage input, right channel

(1) Schmitt trigger input
(2) Schmitt trigger input
(3) Open-drain configuration in I^2C mode
(4) Onboard pull-down resistor (50 kΩ, typical)
(5) CMOS Schmitt trigger input

PCM1795 (IC402)



PCM1795 Block Diagram

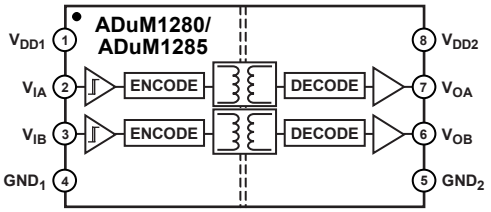


PCM1795 Pin Discriptions

TERMINAL		I/O	DESCRIPTION
NAME	NO.		
AGND1	19	—	Analog ground (internal bias)
AGND2	24	—	Analog ground (internal bias)
AGND3L	27	—	Analog ground (left channel DACFF)
AGND3R	16	—	Analog ground (right channel DACFF)
BCK	6	I	Bit clock input(1)
DATA	5	I	Serial audio data input(2)
DGND	8	—	Digital ground
$I_{OUT}L+$	25	O	Left channel analog current output+
$I_{OUT}L–$	26	O	Left channel analog current output–
$I_{OUT}R+$	17	O	Right channel analog current output+
$I_{OUT}R–$	18	O	Right channel analog current output–
I_{REF}	20	—	Output current reference bias pin
LRCK	4	I	Left and right clock (f_S) input(2)
MC	12	I	Mode control clock input(2)
MDI	11	I	Mode control data input(2)
MDO	13	I/O	Mode control readback data output(3)
$\overline{MS}$	10	I/OI	Mode control chip-select input(4); active low
MSEL	3	I	$I^2C/\overline{SPI}$ select(2); active low SPI select
$\overline{RST}$	14	I	Reset(2); active low

(1) Schmitt-trigger input, 5-V tolerant.
(2) Schmitt-trigger input, 5-V tolerant.
(3) Schmitt-trigger input and output. 5-V tolerant input. In I^2C mode, this pin becomes an open-drain 3-state output; otherwise, this pin is a CMOS output.
(4) Schmitt-trigger input and output. 5-V tolerant input and CMOS output.

ADuM1280 (IC313, IC315, IC316, IC318) / ADuM1285 (IC309, IC310, IC311)



ADuM1280 / ADuM1285 Pin Configuration

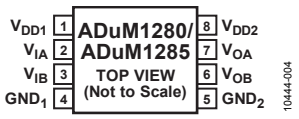
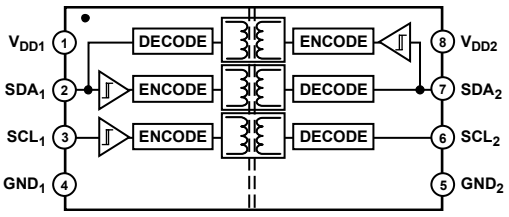


Figure 4. ADuM1280/ADuM1285 Pin Configuration

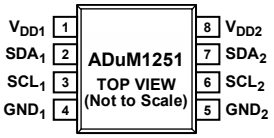
ADuM1280 / ADuM1285 Pin Function Descriptions

Pin No.	Mnemonic	Description
1	V_{DD1}	2.7 V to 5.5 V Supply Voltage for Isolator Side 1.
2	V_{IA}	Logic Input A.
3	V_{IB}	Logic Input B.
4	GND_1	Ground 1. Ground reference for Isolator Side 1.
5	GND_2	Ground 2. Ground reference for Isolator Side 2.
6	V_{OB}	Logic Output B.
7	V_{OA}	Logic Output A.
8	V_{DD2}	2.7 V to 5.5 V Supply Voltage for Isolator Side 2.

ADuM1251 (IC317)



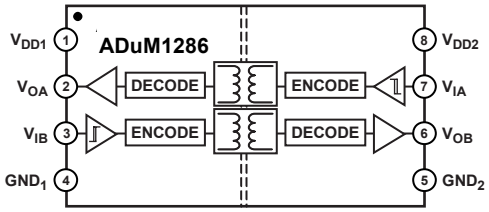
ADuM1251 Pin Configuration



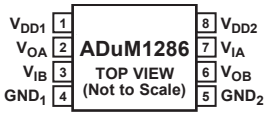
ADuM1251 Pin Function Descriptions

Pin No.	Mnemonic	Description
1	V_{DD1}	Supply Voltage, 3.0 V to 5.5 V.
2	SDA_1	Data Input/Output, Side 1.
3	SCL_1	Clock Input, Side 1.
4	GND_1	Ground 1. Ground reference for isolator Side 1.
5	GND_2	Ground 2. Isolated ground reference for isolator Side 2.
6	SCL_2	Clock Output, Side 2.
7	SDA_2	Data Input/Output, Side 2.
8	V_{DD2}	Supply Voltage, 3.0 V to 5.5 V.

ADuM1286 (IC312)



ADuM1286 Pin Configuration

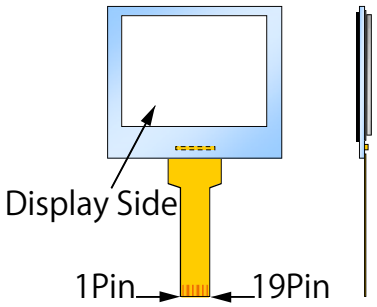


ADuM1286 Pin Function Descriptions

Pin No.	Mnemonic	Description
1	V_{DD1}	2.7 V to 5.5 V Supply Voltage for Isolator Side 1.
2	V_{OA}	Logic Output A.
3	V_{IB}	Logic Input B.
4	GND_1	Ground 1. Ground reference for Isolator Side 1.
5	GND_2	Ground 2. Ground reference for Isolator Side 2.
6	V_{OB}	Logic Output B.
7	V_{IA}	Logic Input A.
8	V_{DD2}	2.7 V to 5.5 V Supply Voltage for Isolator Side 2.

2. DISPLAY

MXS4046



MXS4046 IO Interfaces

端子番号 Pin No.	端子名 Pin Name	入出力 IO	機能 Functions
1	VSL	P	陽極基準電位 Anode Reference Voltage
2	VSS	P	グランド GND
3	VCC	P	ドライバ系VCC電源 Drive System Power
4	VCOMH	P	陰極電源 Power Supply for Cathode Driver
5	VDD	P	内部ロジック系電源 Power supply for Core logic operation
6	VCI	P	ロジック系電源 Logic System Power Voltage
7	VSS	P	グランド GND
8	IREF	O	陽極出力基準電流設定端子 Reference current setting
9	VSS	P	グランド GND
10	CS#	I	チップセレクト入力(CS#=Lの時アクティブ) Chip Select(Active Low),
11	RES#	I	リセット端子 Reset
12	D/C#	I	データ/コマンド切り替え入力 Switch data or command
13	SCLK	I	シリアルクロック入力 Serial clock input
14	SDIN	I	シリアルデータ入力 Serial data input
15	VCI	P	ロジック系電源 Logic System Power Voltage
16	VDD	P	内部ロジック系電源 Power supply for Core logic operation
17	VCOMH	P	ドライバ系VCOMH電源 High voltage power supply for driving circuits
18	VCC	P	ドライバ系VCC電源 High voltage power supply for driving circuits
19	VSS	P	グランド GND

I: Input
O: Output
I/O: Inout
P: Power Supply

MAIN PCB ASS'Y

※Parts indicated by "nsp"on this table cannot be supplied.

※The parts listed I NOTE:The symbols in the column Remarks indicate the following destinations.

E3 : U.S.A. & Canada model E2 : Europe model E1C : China model E1 : Asia model JP : Japan model

	REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
	SEMICONDUCTORS GROUP							
	D201,202	963201500170D	D,SWITCHING CHIP LBAS16HT1G FAST SWITCHING SOD-323		K005041480230S	2		
	D306	963201500170D	D,SWITCHING CHIP LBAS16HT1G FAST SWITCHING SOD-323		K005041480230S	7		
	D309-312	963201500170D	D,SWITCHING CHIP LBAS16HT1G FAST SWITCHING SOD-323		K005041480230S	4		
	IC201,202	00D2623046902	IC,LOGIC TC7WH157FU/SSOP8-P-0.65 2CH MULTIPLEXER		J0407157000010S	2		
	IC203	963234100270D	IC,LOGIC 74VHCU04MTCX HEX INVERTER TSSOP14P		J040740400270S	1	*	
	IC204	00D2623046902	IC,LOGIC TC7WH157FU/SSOP8-P-0.65 2CH MULTIPLEXER		J0407157000010S	3		
	IC309-311	23981009450AS	IC,LOGIC ADUM1285CRZ DUAL CH DIGITAl ISOLATOR		J0401285080010S	3		
	IC312	963239101270D	IC,LOGIC ADUM1286CRZ DUAL CH DIGITAl ISOLATOR		J0401286080010S	1	*	
	IC313	23981009350AS	IC,LOGIC ADUM1280ARZ DUAL CH DIGITAL ISOLATOR		J0401280080010S	4		
	IC315,316	23981009350AS	IC,LOGIC ADUM1280ARZ DUAL CH DIGITAL ISOLATOR		J0401280080010S	2		
	IC317	963239101280D	IC,LOGIC ADUM1251ARZ HOT SWAPPABLE DUAL I2C ISOLATOR		J0401251080010S	1	*	
	IC318	23981009350AS	IC,LOGIC ADUM1280ARZ DUAL CH DIGITAL ISOLATOR		J0401280080010S	4		
	IC402	236810081500S	IC,LOGIC-D/A CONVER PCM1795		J0421795000010S	1		
	IC405,406	00D2630615902	IC,LINEAR OP BA15218F-E2 SOP8		J1211521800030S	2		
	IC407	963235100680D	IC,LINEAR OP NJM8068G SOP8 DUAL OP AMP		J1218068000010S	4	*	
	IC408	963235100690D	IC,ELECT VR NJU72341 2CH ELECT VOLUME IC SSOP14		J0847234100010S	1	*	
	IC409	963235100680D	IC,LINEAR OP NJM8068G SOP8 DUAL OP AMP		J1218068000010S	4	*	
	IC410	00D2630753000	IC,LINEAR-REGULATOR NJM7809FA,20W-TO220IS MOLD		J1267809000090S	1		
	IC411	00D2630878008	IC,LINEAR-REGULATOR NJM7909FA,16W-TO220F		J1267909000050S	1		
	IC412	00D2630553006	IC,LINEAR-REGULATOR NJM7805FA,16W-TO220F MOLD		J1267805001300S	1		
	IC413	963231101730D	IC,LINEAR-REGULATOR AP1117-3.3 SOT-223 3.3V 1A LOW DROPOUT		J1261117332300S	2	*	
	IC414	963235100680D	IC,LINEAR OP NJM8068G SOP8 DUAL OP AMP		J1218068000010S	4	*	
	IC415	963231101730D	IC,LINEAR-REGULATOR AP1117-3.3 SOT-223 3.3V 1A LOW DROPOUT		J1261117332300S	2	*	
	IC416	963235100680D	IC,LINEAR OP NJM8068G SOP8 DUAL OP AMP		J1218068000010S	4	*	
	Q401-404	943214500030S	SEMI,CHIP TR/NPN 2SC INC2001AC1 0.2W/SC-59 ISAHAYA		J5220200112100S	4		
	Q405	963212500260D	SEMI,CHIP TR/PNP 2SA RT1P144C 0.2W/SC-59 ISAHAYA		J5201014412100S	1	*	
	Q406	943216500020S	SEMI,CHIP TR/NPN 2SC RT1N141C 0.2W/SC-59 ISAHAYA		J5221014112100S	2		
	Q407-410	943214500030S	SEMI,CHIP TR/NPN 2SC INC2001AC1 0.2W/SC-59 ISAHAYA		J5220200112100S	4		
	Q411	963214500290D	SEMI,TR/GE NPN 2SC KTC3203Y,0.6W/TO92-REEL		J5023203Y0000S	2	*	
	Q412,413	963212500270D	SEMI,TR/GE PNP 2SA KTA1271Y,0.6W/TO92-REEL		J5001271Y0050S	2	*	
	Q414	963214500290D	SEMI,TR/GE NPN 2SC KTC3203Y,0.6W/TO92-REEL		J5023203Y0000S	2	*	
	Q415,416	943214500030S	SEMI,CHIP TR/NPN 2SC INC2001AC1 0.2W/SC-59 ISAHAYA		J5220200112100S	2		
	Q417	943214500020S	SEMI,CHIP TR/NPN 2SC 2SC3052 0.15W/SC-59 REEL ISAHAYA		J5223052000050S	1		
	Q418	943216500020S	SEMI,CHIP TR/NPN 2SC RT1N141C 0.2W/SC-59 ISAHAYA		J5221014112100S	2		
	ZD303	963202003490S	D,ZENER CHIP 0.2W 6.2V UDZ S SERIES (UMD2 TYPE)		K06606R24P400S	1		
	RESISTOR GROUP							
	R201	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	3		
	R202	nsp	R,CHIP THICK 100-J,1/16W-1005REEL		C20001016M101S	8		
	R203	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	3		
	R204	nsp	R,CHIP THICK 100-J,1/16W-1005REEL		C20001016M101S	8		
	R206,207	nsp	R,CHIP THICK 100-J,1/16W-1005REEL		C20001016M101S	2		
	R208	nsp	R,CHIP THICK 47-J,1/16W-1005REEL		C20004706M101S	3		
	R209	nsp	R,CHIP THICK 75-J,1/16W-1005REEL		C20007506M101S	1		
	R210	nsp	R,CHIP THICK 330K-J,1/16W-1005REEL		C20003346M101S	1		
	R211	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	10		
	R212	nsp	R,CHIP THICK 47K-J,1/16W-1005REEL		C20004736M101S	1		
	R213,214	nsp	R,CHIP THICK 22-J,1/16W-1005REEL		C20002206M101S	2		
	R215	nsp	R,CHIP THICK 470-J,1/16W-1005REEL		C20004716M101S	1		
	R216	nsp	R,CHIP THICK 100-J,1/16W-1005REEL		C20001016M101S	8		
	R301-313	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	13		
	R314	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	10		
	R367,368	nsp	R,CHIP THICK 4.7K-J,1/16W-1608REEL		C20004726M160S	2		
	R401,402	nsp	R,CHIP THICK 4.7K-J,1/16W-1608REEL		C20004726M160S	2		
	R404,405	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	2		
	R406	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	3		
	R407-409	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	3		
	R410	nsp	R,CHIP THICK 47-J,1/16W-1005REEL		C20004706M101S	3		
	R411-413	nsp	R,CHIP THICK 100-J,1/16W-1005REEL		C20001016M101S	3		
	R414	nsp	R,CHIP THICK 47-J,1/16W-1005REEL		C20004706M101S	3		
	R415	nsp	R,CHIP THICK 0-J,1/10W-2012REEL		C2000000060200S	2		
	R416	nsp	R,CHIP THICK 10K-J,1/16W-1608REEL		C20001036M160S	3		
	R417,418	nsp	R,CARBON FILM 820-J,1/5W-52RE-AX		C00008216P520S	2		
	R419,420	nsp	R,CARBON FILM 82-J,1/5W-52RE-AX		C00008206P520S	2		
	R421,422	nsp	R,CHIP THICK 82-J,1/16W-1608REEL		C20008206M160S	2		
	R423,424	nsp	R,CARBON FILM 82-J,1/5W-52RE-AX		C00008206P520S	2		
	R425,426	nsp	R,CARBON FILM 820-J,1/5W-52RE-AX		C00008216P520S	2		
	R427,428	nsp	R,CHIP THICK 82-J,1/16W-1608REEL		C20008206M160S	2		
	R429-432	nsp	R,CARBON FILM 82-J,1/5W-52RE-AX		C00008206P520S	4		
	R433	nsp	R,CHIP THICK 180-J,1/16W-1608REEL		C20001816M160S	2		
	R436-439	nsp	R,CARBON FILM 150-J,1/5W-52RE-AX		C00001516P520S	4		
	R440,441	nsp	R,CARBON FILM 10-J,1/5W-52RE-AX		C00001006P520S	2		
	R442-445	nsp	R,CHIP THICK 1K-J,1/16W-1608REEL		C20001026M160S	4		
	R446	963121006330M	R,CARBON FILM 47K-J,1/5W-52RE-AX		C00004736P520S	3		
	R447,448	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	2		
	R449-452	nsp	R,CHIP THICK 100K-J,1/16W-1608REEL		C20001046M160S	4		
	R453	nsp	R,CHIP THICK 1K-J,1/16W-1608REEL		C20001026M160S	11		
	R454	nsp	R,CHIP THICK 220-J,1/16W-1608REEL		C20002216M160S	4		
	R455	nsp	R,CARBON FILM 68-J,1/5W-52RE-AX		C00006806P520S	2		
	R456	nsp	R,CHIP THICK 220-J,1/16W-1608REEL		C20002216M160S	4		
	R457	nsp	R,CARBON FILM 68-J,1/5W-52RE-AX		C00006806P520S	2		
	R458-460	nsp	R,CHIP THICK 1K-J,1/16W-1608REEL		C20001026M160S	3		
	R461,462	nsp	R,CHIP THICK 220-J,1/16W-1608REEL		C20002216M160S	2		
	R463	nsp	R,CHIP THICK 4.7K-J,1/16W-1608REEL		C20004726M160S	7		
	R464,465	nsp	R,CARBON FILM 4.7K-J,1/5W-52RE-AX		C00004726P520S	2		
	R466	nsp	R,CHIP THICK 4.7K-J,1/16W-1608REEL		C20004726M160S	7		
	R467	nsp	R,CHIP THICK 12-J,1/16W-1608REEL		C20001206M160S	8		
	R468	nsp	R,CHIP THICK 1.5K-J,1/16W-1608REEL		C20001526M160S	4		
	R469	nsp	R,CHIP THICK 12-J,1/16W-1608REEL		C20001206M160S	8		
	R470	nsp	R,CHIP THICK 1.5K-J,1/16W-1608REEL		C20001526M160S	4		
	R471,472	nsp	R,CHIP THICK 12-J,1/16W-1608REEL		C20001206M160S	2		
	R473	nsp	R,CHIP THICK 1.5K-J,1/16W-1608REEL		C20001526M160S	4		
	R474-477	nsp	R,CHIP THICK 12-J,1/16W-1608REEL		C20001206M160S	4		
	R478	nsp	R,CHIP THICK 1.5K-J,1/16W-1608REEL		C20001526M160S	4		
	R479,480	nsp	R,CHIP THICK 10K-J,1/16W-1608REEL		C20001036M160S	2		
	R481,482	nsp	R,CHIP THICK 47K-J,1/16W-1608REEL		C20004736M160S	2		
	R483	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	27		
	R484	nsp	R,CARBON FILM 820-J,1/5W-52RE-AX		C00008216P520S	6		
	R485	nsp	R,CARBON FILM 2K-J,1/5W-52RE-AX		C00002026P520S	4		
	R486	nsp	R,CARBON FILM 820-J,1/5W-52RE-AX		C00008216P520S	6		
	R487	nsp	R,CARBON FILM 2K-J,1/5W-52RE-AX		C00002026P520S	4		
	R488	nsp	R,CHIP THICK 10-J,1/16W-1608REEL		C20001006M160S	2		
	R489	nsp	R,CHIP THICK 1K-J,1/16W-1608REEL		C20001026M160S	11		

	REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
	R490	nsp	R,CHIP THICK 10-J,1/16W-1608REEL		C20001006M160S	2		
	R491	nsp	R,CHIP THICK 1K-J,1/16W-1608REEL		C20001026M160S	11		
	R494	nsp	R,CHIP THICK 180-J,1/16W-1608REEL		C20001816M160S	2		
	R495,496	nsp	R,CARBON FILM 180-J,1/5W-52RE-AX		C00001816P520S	2		
	R498	nsp	R,CHIP THICK 150K-J,1/16W-1608REEL		C20001546M160S	1		
	R499	nsp	R,CHIP THICK 91-J,1/16W-1608REEL		C20009106M160S	1		
	R500	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	27		
	R501	nsp	R,CHIP THICK 0-J,1/10W-2012REEL		C200000060200S	2		
	R502,503	nsp	R,CARBON FILM 2K-J,1/5W-52RE-AX		C00002026P520S	2		
	R504	nsp	R,CHIP THICK 1K-J,1/16W-1608REEL		C20001026M160S	11		
	R505	nsp	R,CHIP THICK 47K-J,1/16W-1608REEL		C20004736M160S	3		
	R506	nsp	R,CHIP THICK 4.7K-J,1/16W-1608REEL		C20004726M160S	7		
	R507-510	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	4		
	R511,512	nsp	R,CHIP THICK 100K-J,1/16W-1608REEL		C20001046M160S	2		
	R513-516	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	4		
	R517-524	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	8		
	R526-532	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	7		
	R533,534	963121006330M	R,CARBON FILM 47K-J,1/5W-52RE-AX		C00004736P520S	2		
	CAPACIITORS GROUP							
	C201-203	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	3		
	C205	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	8		
	C206-211	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	6		
	C212	nsp	C,CERAMIC CHIP HIK X7R)0.01UF-K/16V-1005REEL		D011103177101S	1		
	C213	nsp	C,CERAMIC CHIP HIK COG)47PF-J/50V-1005REEL		D011470167101S	1		
	C214	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	8		
	C215,216	nsp	C,CERAMIC CHIP HIK X7R)4.7UF-K/6.3V-1608REEL		D011475571160S	2		
	C217-219	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	3		
	C220	nsp	C,CERAMIC CHIP HIK X7R)4.7UF-K/6.3V-1608REEL		D011475571160S	3		
	C227-230	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	4		
	C347-351	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	5		
	C353-355	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	3		
	C357-359	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	3		
	C361	00D2544750704	C,ELECT GE 85C 470UF-M/50V,12.5*20 RFO-50V471MI5P#-F ELNA		D040471087440S	1		
	C367	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	27		
	C401	00D2544773930	C,ELECT GE 85C 47UF-M/25V,8*12-5RE RFS-25V470MG3#A-T40 (RFS#A)		D040470084140S	4		
	C402	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	5		
	C403	133050087575S	C,FILM POLYESTER ST-0.018UF-J/100V-5RE		D02018306C060S	4		
	C404	00D2544693942	C,ELECT GE 85C 220UF-M/50V,10*16 RFO-50V221MH4P#-F ELNA		D040221087240S	2		
	C405	00D2544773930	C,ELECT GE 85C 47UF-M/25V,8*12-5RE RFS-25V470MG3#A-T40 (RFS#A)		D040470084140S	4		
	C406	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	5		
	C407	133050087575S	C,FILM POLYESTER ST-0.018UF-J/100V-5RE		D02018306C060S	4		
	C408	00D2544693942	C,ELECT GE 85C 220UF-M/50V,10*16 RFO-50V221MH4P#-F ELNA		D040221087240S	2		
	C410	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	5		
	C411	133050076599S	C,FILM COMBI 3Z2E103J-T2 LP2-0.01UF-J/250V		D02610316H050S	2		
	C412	00D2544778702	C,ELECT GE 85C 47UF-M/50V,10*16 ROG-50V470MH4#A-F ELNA		D040470087440S	1		
	C413	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	5		
	C415	133050076599S	C,FILM COMBI 3Z2E103J-T2 LP2-0.01UF-J/250V		D02610316H050S	2		
	C416-420	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	5		
	C422-424	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	3		
	C426	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	27		
	C428	134050059139S	C,ELECT GE 85C 220UF-M/50V,10*16 RFG-50V221H4PE#Z-F ELNA (RFY)		D040221087470S	2		
	C429,430	00D2544702985	C,ELECT GE 85C 47UF-M/50V,10*16 RFS-50V470MH4#A-F ELNA (RFS#A)		D040470087270S	2		
	C432	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	27		
	C434	134050059139S	C,ELECT GE 85C 220UF-M/50V,10*16 RFG-50V221H4PE#Z-F ELNA (RFY)		D040221087470S	2		
	C435,436	nsp	C,CERAMIC CHIP T.C COG)47PF-J/50V-1608REEL		D010470167160S	2		
	C437,438	00D2544702985	C,ELECT GE 85C 47UF-M/50V,10*16 RFS-50V470MH4#A-F ELNA (RFS#A)		D040470087270S	2		
	C439	133050076513S	C,FILM COMBI 3Z2E222J-T2 LP2-2200PF-J/250V		D02622216H050S	4		
	C440	00D2544702985	C,ELECT GE 85C 47UF-M/50V,10*16 RFS-50V470MH4#A-F ELNA (RFS#A)		D040470087270S	5		
	C442	133050076513S	C,FILM COMBI 3Z2E222J-T2 LP2-2200PF-J/250V		D02622216H050S	4		
	C443-445	nsp	C,CERAMIC CHIP T.C COG100PF-J/50V-1608REEL		D010101167160S	3		
	C446	nsp	C,CERAMIC CHIP HIK X7R)1000PF-K/50V-1608REEL		D011102777160S	3		
	C447,448	nsp	C,CERAMIC CHIP T.C COG)47PF-J/50V-1608REEL		D010470167160S	2		
	C449,450	133050076513S	C,FILM COMBI 3Z2E222J-T2 LP2-2200PF-J/250V		D02622216H050S	2		
	C451	133050087575S	C,FILM POLYESTER ST-0.018UF-J/100V-5RE		D02018306C060S	4		
	C452	133050087599S	C,FILM POLYESTER ST-0.027UF-J/100V-5RE		D02027306C060S	2		
	C453	133050087575S	C,FILM POLYESTER ST-0.018UF-J/100V-5RE		D02018306C060S	4		
	C454	133050087599S	C,FILM POLYESTER ST-0.027UF-J/100V-5RE		D02027306C060S	2		
	C455-458	133050076568S	C,FILM COMBI 3Z2E562J-T2 LP2-5600PF-J/250V		D02656216H050S	4		
	C471,472	00D2544774706	C,ELECT GE 85C 100UF-M/25V,10*16 RFS-25V101MH4#A-F ELNA (RFS#A)		D040101084440S	2		
	C476	00D2544573936	C,ELECT GE 85C 0.47UF-M/50V,5*11-5RE SMS SY		D040R47087050S	1		
	C483	00D2544748716	C,ELECT GE 85C 1000UF-M/16V,10*20 RFO-16V102MH5P#-F ELNA		D040102083440S	1		
	C486	00D2544694909	C,ELECT GE 85C 100UF-M/25V,6.3*11 RFO-25V101MF3P#-T2 ELNA		D040101084330S	2		
	C487-490	963134501230S	C,ELECT GE 85C 10UF-M/50V RA3 SERIES 5*11 5RE-REEL (SAGEUB)		D040100087380S	4		
	C491,492	00D2544773930	C,ELECT GE 85C 47UF-M/25V,8*12-5RE RFS-25V470MG3#A-T40 (RFS#A)		D040470084140S	2		
	C495,496	00D2544694909	C,ELECT GE 85C 100UF-M/25V,6.3*11 RFO-25V101MF3P#-T2 ELNA		D040101084330S	2		
	C498	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	27		
	C505	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	5		
	C506	943134005040S	C,ELECT GE 85C 220UF-M/50V,10*16 RFO-50V221MH4P#E-F ELNA (RFOII)		D040221087340S	1		
	C507	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	27		
	C522	nsp	C,CERAMIC CHIP T.C COG100PF-J/50V-1608REEL		D010101167160S	5		
	C523	nsp	C,CERAMIC CHIP HIK X7R)1000PF-K/50V-1608REEL		D011102777160S	3		
	C526	nsp	C,CERAMIC CHIP T.C COG100PF-J/50V-1608REEL		D010101167160S	5		
	C527	nsp	C,CERAMIC CHIP HIK X7R)1000PF-K/50V-1608REEL		D011102777160S	3		
	C532,533	963133501540S	C,FILM POLYESTER ST-0.00022UF-J/100V-5RE		D02022106C050S	2		
	OTHER PARTS GROUP							
	CN301A	nsp	CN.WAFER 2.5MM C22542-5070-22G 22P BtoB SOCKET P=2.54MM		L1022254222210S	1		
	CN301B	nsp	CN.WAFER 2.5MM C22542-5070-16G 16P BtoB SOCKET P=2.54MM		L1022254216210S	1		
	CP402	nsp	CN.WAFER 2.0MM 20010WS-04A00 DIP4P STRAIGHT		L101200100410S	1		
	JACK201	963643102760D	TER,RCA 1PIN RCA-GOLD-OR (RC007-F01R1BY-B)		G600107CGGOBYS	1	*	
	JACK202,203	62201000200AS	MODULE JSR2124 25MBPS OPTICAL RECEIVER INTERFACE		E100212400010S	2		
	JACK401	963643102770D	TER,RCA 2PIN 206BFG1-05G(RD,WH) DELETE PLATE(RC006-F02R1BY-C)		G601206BFG1CYS	1	*	
	L107	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	27		
	L201-203	nsp	COIL,BEAD BLM21PG221SN1 220ohm 2A SMD2012 TYPE		D340201212210S	3		
	L302-309	nsp	COIL,BEAD CBW160808U121T 120ohm SMD1608 TYPE		D340160811210S	8		
	L310,311	nsp	COIL,BEAD BLM21PG221SN1 220ohm 2A SMD2012 TYPE		D340201212210S	2		
	L408	nsp	COIL,BEAD BLM21PG221SN1 220ohm 2A SMD2012 TYPE		D340201212210S	6		
	X201	963141101090D	OSCILATOR,CERAMIC CHIP OS-3225 22.579200MHZ 3.3V SMD3225 ECEC		E85522R579290S	1	*	
	X202	963141101100D	OSCILATOR,CERAMIC CHIP OS-3225 24.576000MHZ 3.3V SMD3225 ECEC		E85524R576090S	1	*	
	★	963639101290D	UNIT ASSY DC TO DC CONVERTER ISD-001		8178001030010S	1	*	

FRONT PCB ASS'Y

※Parts indicated by "nsp"on this table cannot be supplied.

※The parts listed I NOTE:The symbols in the column Remarks indicate the following destinations.

E3 : U.S.A. & Canada model E2 : Europe model E1C : China model E1 : Asia model JP : Japan model

	REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
	SEMICONDUCTORS GROUP							
	D313,314	963201500170D	D,SWITCHING CHIP LBAS16HT1G FAST SWITCHING SOD-323	E2	K005041480230S	2		
	D313	963202500800D	D,ZENER CHIP 0.2W 13V UDZ S SERIES (UMD2 TYPE)	E2, E1C, JP	K06613R04P400S	1	*	
	D314	00D2760683998	D,ZENER CHIP 0.2W 16V UDZ S SERIES (UMD2 TYPE)	E2, E1C, JP	K06616R04P400S	1		
	D315,316	963201500170D	D,SWITCHING CHIP LBAS16HT1G FAST SWITCHING SOD-323		K005041480230S	2		
	IC501	nsp	IC,CPU MICRO PROCESS CY8C20234 QFN16 PSOC PROGRAMMABLE SOC		8952300000120	1		
	Q501	943216500020S	SEMI,CHIP TR/NPN 2SC RT1N141C 0.2W/SC-59 ISAHAYA		J5221014112l0S	1		
	Q502,503	963211500160D	SEMI,CHIP TR/PNP 2SB PBSS5140U SOT323 40V LOW VCEsat PNP TR		J5210514010l0S	2		
	Q504-506	943216500020S	SEMI,CHIP TR/NPN 2SC RT1N141C 0.2W/SC-59 ISAHAYA		J5221014112l0S	3		
	ZD501	963202500260S	D,ZENER CHIP 0.2W 2.7V UDZV SERIES (UMD2 TYPE)		K06602R76P400S	1		
	RESISTOR GROUP							
	R502	nsp	R,CHIP THICK 330-J,1/16W-1608REEL		C20003316M160S	1		
	R503	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	1		
	R504-506	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M100S	3		
	R507	nsp	R,CHIP THICK 150-J,1/16W-1005REEL		C20001516M100S	1		
	R509	nsp	R,CHIP THICK 560-J,1/16W-1005REEL		C20005616M100S	1		
	R510	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M100S	3		
	R511,512	nsp	R,CHIP THICK 3.3K-J,1/16W-1005REEL		C20003326M101S	2		
	R513,514	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	2		
	R515	nsp	R,CHIP THICK 1.5M-F,1/16W-1608REEL		C20001554M160S	1		
	R516	nsp	R,CHIP THICK 4.7K-D,1/16W-1608REEL		C20004721M161S	1		
	R517,518	nsp	R,CHIP THICK 4.7K-J,1/16W-1608REEL		C20004726M160S	2		
	R519,520	nsp	R,CHIP THICK 100-J,1/16W-1608REEL		C20001016M160S	2		
	R523-537	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M100S	15		
	R538	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M110S	2		
	R539	nsp	R,CHIP THICK 3.3K-J,1/16W-1005REEL		C20003326M101S	4		
	R540	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M110S	2		
	R541	nsp	R,CHIP THICK 3.3K-J,1/16W-1005REEL		C20003326M101S	4		
	CAPACIITORS GROUP							
	C501	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177100S	1		
	C505	nsp	C,CERAMIC CHIP HIK X7R)1UF-K/16V-1608REEL		D011105173161S	1		
	C506,507	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	2		
	C508	nsp	C,CERAMIC CHIP HIK Y5V1UF-Z/50V-1608REEL		D011105597160S	1		
	C509	nsp	C,CERAMIC CHIP HIK X5R)2.2UF-K/16V-1608REEL GRM188R61C225KE15D		D011225573160S	1		
	C510	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	3		
	C511,512	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	2		
	C513,514	nsp	C,CERAMIC CHIP T.C COG470PF-J/50V-1608REEL		D0104711671160S	2		
	C515,516	nsp	C,CERAMIC CHIP T.C COG100PF-J/50V-1608REEL		D010101167160S	2		
	C517	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	1		
	C519	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	3		
	C526	nsp	C,CERAMIC CHIP HIK Y5V)4.7UF-Z/6.3V-1608REEL		D011475591160S	1		
	C527	nsp	C,CERAMIC CHIP HIK X7R)2200PF-K/50V-1005REEL		D011222177100S	1		
	OTHER PARTS GROUP							
	CN501	nsp	CN,WIRE 2MM 50MM/4P CKM2002HV-04(TURN)=CKM2002HR-04 WH1007#26		L0025000401805S	1		
	CN504	nsp	CN,WIRE 2MM 80MM/5P 20010HS-05(TURN)=CKM2002HV-05 WH1007#26		L0028000501805S	1		
	CN505	nsp	CN,WIRE 2MM 70MM/4P 20010HS-04=CKM2002HV-04 RD2725#24,28 CORE		L0027000401805S	1		
	CP503	nsp	CN.WAFER 2.0MM 20022WS-05C 5P STRAIGHT SMT		L1012002205105S	1		
	FPC501	nsp	CN.FPC-UNKNOWN 04-6296-019-931-846+ BOTTOM 19P 0.3MM RA SMT		L1396296001905S	1		
	FPC502	nsp	CN.FPC 1.0MM 1.0-11S-19PW 19P AN DIP TOP CONTACT		L1301001119505S	1		
	JACK501	963643102780D	JACK,D6.5 PHONE (YUQIU) D6.5 SILVER		G402PJ619A01YS	1	*	
	L501-503	nsp	COIL,BEAD BLM21PG221SN1 220ohm 2A SMD2012 TYPE		D3402012122105S	3		
	L507-510	nsp	COIL,BEAD BLM21PG221SN1 220ohm 2A SMD2012 TYPE		D3402012122105S	4		
	LED501	963644101930D	LED,ROUND BZ-BZ82V5K-1-M36-LC9.5-10.5-L 3PI WHITE		K5000390011805S	1	*	
	LED502,503	963263100950D	LED,THICK SMLE12WBC7W1H WHITE SMD1608		K5201271900105S	2	*	
	LUG501	nsp	RING,TER WIRE 50MM/1P 6054-BS=CKM9919T BK1007#20		8410500001805S	1		
	SW501	00D9630095305	SW,TACT SKHV10910D01 KB581/LG 160G		G1800405000105S	1		
	VEC501	963667100160D	SW,ENCODER EC12B24T00A6Z03		G1211224006305S	1	*	
	★	nsp	TAPE TESA4970 11*28/FLT HOLDER		1220211559000S	1		
	★	nsp	COVER DA300USBE1C(DENON) SPTE 0.3T/SHIELD OLED		4310216016000S	1		
	★	nsp	HOLDER DA300USBE1C(DENON) ABS BK/OLED		4320211341000S	1		
	★	963179100060D	DISPLAY,LED MXS4046A OLED		K5310404600105S	1	*	
	★	nsp	SUPPORTER SR110/N1S(MARANTZ) RUBBER(MBR)h6(BLUE2PIN)/LED B		4070210245000S	1		

DSP PCB ASS'Y

※Parts indicated by "nsp"on this table cannot be supplied.

※The parts listed I NOTE:The symbols in the column Remarks indicate the following destinations.

E3 : U.S.A. & Canada model E2 : Europe model E1C : China model E1 : Asia model JP : Japan model

	REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
	SEMICONDUCTORS GROUP							
	D301	963204500350D	D,SCHOTTKY CHIP RB551V-30TE-17 UMD2 REEL SCHOTTKY BARRIER DIODE		K1255513000010S	2	*	
	D302	963201500170D	D,SWITCHING CHIP LBAS16HT1G FAST SWITCHING SOD-323		K005041480230S	1		
	D305	963204500350D	D,SCHOTTKY CHIP RB551V-30TE-17 UMD2 REEL SCHOTTKY BARRIER DIODE		K1255513000010S	2	*	
	D313	963202500800D	D,ZENER CHIP 0.2W 13V UDZ S SERIES (UMD2 TYPE)		K06613R04P400S	1	*	
	D314	00D2760683998	D,ZENER CHIP 0.2W 16V UDZ S SERIES (UMD2 TYPE)		K06616R04P400S	1		
	IC101	963245100480D	IC,ANALOG TMS320C6748BZWT3 DSP IC NFBGA361		J080320674810S	1	*	
	IC102	963248102600D	IC,MEMORY FLASH MX25L4006EM2I-12G 4M-BIT SOP8L 200MIL MACRONIX		8952300000090	1	*	
	IC204	23681014050AS	IC,LOGIC-INTERFACE PCM9211 TRANSCEIVER LQFP48		J0469211000010S	1		
	IC205	963239101290D	IC,ANALOG EP4CE15F17C8N IC CYCLONE IV E FPGA 256FBGA		J0804001555510S	1	*	
	IC206	963246100950D	IC,MEMORY FLASH EPCS4SI8N 4M SOIC-8P ALTERA		8952300000100	1	*	
	IC301	963231101740D	IC,LINEAR-REGULATOR NJW4184U2-33A 3V3 SOT-89-5		J1264184330220S	1	*	
	IC302	963231101750D	IC,LOGIC-D/D CONVER AP6503 SO-8EP-13		J0486503000010S	1	*	
	IC303	963231101760D	IC,LINEAR-REGULATOR NJM2888F18 1.8V SOT-23-5 LDO REG		J1262888180010S	1	*	
	IC304	963231101770D	IC,LINEAR-REGULATOR AP7365-12WG 1.2V SOT25 DIODES		J1267365120010S	1	*	
	IC305	963243102040D	IC,CPU MICRO PROCESS STM32F100VCT6B LQFP100		8952300000110	1	*	
	IC306	963246100790S	IC,MEMORY-EEPROM CW24C16DR/ADR 16Kbit 1.8V TO 5.5V SOP8P		J0002416001705S	1		
	IC307	963231101780D	IC,LINEAR-REGULATOR BU4828F-TR 2.8V LOW VOLTAGE DETECTOR SOP4		J1264828000010S	1	*	
	IC308	963231101790D	IC,LINEAR-REGULATOR NJW4131R-B MSOP8 SW REG IC FOR BOOST CONVERTER		J1264131000010S	1	*	
	IC309	963231101800D	IC,LINEAR-REGULATOR NJM2888F25 2.5V SOT-23-5 LDO REG		J1262888250010S	1	*	
	IC321	963239101300D	IC,LOGIC BMA250E LGA12 DIGITAL TRIAXIAL ACCELERATION SENSOR		J0402501200010S	1	*	
	Q101	963229500150D	SEMI,FET CHIP RRQ030P03 TSMT6 P-CH MOSFET		J5430300300605	4	*	
	Q102,103	943216500020S	SEMI,CHIP TR/NPN 2SC RT1N141C 0.2W/SC-59 ISAHAYA		J5221014112105	2		
	Q301	963229500150D	SEMI,FET CHIP RRQ030P03 TSMT6 P-CH MOSFET		J5430300300605	4	*	
	Q302	943216500050S	SEMI,CHIP TR/NPN 2SC RT1N441C 0.2W/SC-59 ISAHAYA		J5221044112105	3		
	Q303-305	943214500020S	SEMI,CHIP TR/NPN 2SC 2SC3052 0.15W/SC-59 REEL ISAHAYA		J5223052000505	3		
	Q306	943216500050S	SEMI,CHIP TR/NPN 2SC RT1N441C 0.2W/SC-59 ISAHAYA		J5221044112105	3		
	Q307	963229500150D	SEMI,FET CHIP RRQ030P03 TSMT6 P-CH MOSFET		J5430300300605	4	*	
	Q308	943216500050S	SEMI,CHIP TR/NPN 2SC RT1N441C 0.2W/SC-59 ISAHAYA		J5221044112105	3		
	Q309	963229500150D	SEMI,FET CHIP RRQ030P03 TSMT6 P-CH MOSFET		J5430300300605	4	*	
	Q310	963211500160D	SEMI,CHIP TR/PNP 2SB PBSS5140U SOT323 40V LOW VCEsat PNP TR		J5210514010105	1		
	Q311	943216500020S	SEMI,CHIP TR/NPN 2SC RT1N141C 0.2W/SC-59 ISAHAYA		J5221014112105	3		
	RESISTOR GROUP							
	R101	nsp	R,CHIP THICK 4.7K-J,1/16W-1005REEL		C20004726M101S	19		
	R102-104	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	3		
	R105,106	nsp	R,CHIP THICK 3.3K-J,1/16W-1005REEL		C20003326M101S	2		
	R107,108	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	2		
	R109	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	R110,111	nsp	R,CHIP THICK 1K-J,1/16W-1005REEL		C20001026M101S	2		
	R114	nsp	R,CHIP THICK 1K-J,1/16W-1005REEL		C20001026M101S	10		
	R115	nsp	R,CHIP THICK 10K-J,1/16W-1608REEL		C20001036M160S	3		
	R116	nsp	R,NETWORK A-TYPE 1K-J 1/16W SMD(1005)*4 WA04X		C1801020421005	1		
	R119,120	nsp	R,CHIP THICK 1K-J,1/16W-1005REEL		C20001026M101S	2		
	R123,124	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	2		
	R127-136	nsp	R,CHIP THICK 4.7K-J,1/16W-1005REEL		C20004726M101S	10		
	R137-139	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	3		
	R140	nsp	R,CHIP THICK 4.7K-J,1/16W-1005REEL		C20004726M101S	19		
	R141	nsp	R,CHIP THICK 100-J,1/16W-1005REEL		C20001016M101S	6		
	R142,143	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	2		
	R147-149	nsp	R,CHIP THICK 100-J,1/16W-1005REEL		C20001016M101S	3		
	R150-157	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	8		
	R158,159	nsp	R,CHIP THICK 100-J,1/16W-1608REEL		C20001016M160S	2		
	R201-204	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	4		
	R211-214	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	4		
	R215	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	58		
	R216-219	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	4		
	R220-222	nsp	R,CHIP THICK 22-J,1/16W-1005REEL		C20002206M101S	3		
	R223-233	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	11		
	R234	nsp	R,CHIP THICK 22-J,1/16W-1005REEL		C20002206M101S	7		
	R235	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	R236	nsp	R,CHIP THICK 22-J,1/16W-1005REEL		C20002206M101S	7		
	R237	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	R238,239	nsp	R,CHIP THICK 22-J,1/16W-1005REEL		C20002206M101S	2		
	R240,241	nsp	R,CHIP THICK 680-J,1/16W-1005REEL		C20006816M101S	2		
	R242-255	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	14		
	R256-258	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	3		
	R259,260	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	2		
	R261	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	58		
	R262	nsp	R,CHIP THICK 1K-J,1/16W-1005REEL		C20001026M101S	10		
	R263	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	68		
	R264,265	nsp	R,CHIP THICK 1K-J,1/16W-1005REEL		C20001026M101S	2		
	R266-279	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	14		
	R280-282	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	3		
	R283	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	R284-299	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	16		
	R300	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	58		
	R302	nsp	R,CHIP THICK 2.2K-F,1/16W-1608REEL		C20002224M160S	1		
	R303	nsp	R,CHIP THICK 24K-F,1/16W-1608REEL		C20002434M160S	1		
	R304	nsp	R,CHIP THICK 10K-F,1/16W-1608REEL		C20001034M160S	1		
	R305	nsp	R,CHIP THICK 6.8K-J,1/16W-1608REEL		C20006826M160S	1		
	R306	nsp	R,CHIP THICK 100-J,1/16W-1608REEL		C20001016M160S	3		
	R307-309	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	3		
	R310	nsp	R,CHIP THICK 100-J,1/16W-1005REEL		C20001016M101S	6		
	R311	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	R312,313	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	2		
	R314-317	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	4		
	R318	nsp	R,CHIP THICK 15K-J,1/16W-1608REEL		C20001536M160S	1		
	R319	nsp	R,CHIP THICK 27K-J,1/16W-1608REEL		C20002736M160S	1		
	R320	nsp	R,CHIP THICK 0-J,1/16W-1608REEL		C20000006M160S	5		
	R321	nsp	R,CHIP THICK 10K-J,1/16W-1608REEL		C20001036M160S	3		
	R322	nsp	R,CHIP THICK 160K-J,1/16W-1608REEL		C20001646M160S	1		
	R323	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	R324,325	nsp	R,CHIP THICK 4.7K-J,1/16W-1005REEL		C20004726M101S	2		
	R326,327	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	2		
	R328	nsp	R,CHIP THICK 4.7K-J,1/16W-1005REEL		C20004726M101S	19		
	R329	nsp	R,CHIP THICK 47K-J,1/16W-1005REEL		C20004736M101S	1		
	R330	nsp	R,CHIP THICK 100K-J,1/16W-1005REEL		C20001046M101S	1		
	R331	nsp	R,CHIP THICK 100-J,1/16W-1005REEL		C20001016M101S	6		
	R333-342	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	10		
	R343-345	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	3		
	R346	nsp	R,CHIP THICK 68K-J,1/16W-1005REEL		C20006836M101S	1		
	R347	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	R348-368	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	21		

	REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
	R369	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	R370	nsp	R,CHIP THICK 1K-J,1/16W-1005REEL		C20001026M101S	10		
	R371	nsp	R,CHIP THICK 4.7K-J,1/16W-1005REEL		C20004726M101S	19		
	R372	nsp	R,CHIP THICK 20K-J,1/16W-1005REEL		C20002036M100S	2		
	R373	nsp	R,CHIP THICK 3.3K-J,1/16W-1005REEL		C20003326M101S	4		
	R374	nsp	R,CHIP THICK 4.7K-J,1/16W-1005REEL		C20004726M101S	19		
	R375	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	58		
	R376	nsp	R,CHIP THICK 20K-J,1/16W-1005REEL		C20002036M100S	2		
	R377	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	R378	nsp	R,CHIP THICK 1K-J,1/16W-1005REEL		C20001026M101S	10		
	R379	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	58		
	R380	nsp	R,CHIP THICK 10K-J,1/16W-1608REEL	E2	C20001036M160S	3		
	R382-385	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	4		
	R386	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	R387	nsp	R,CHIP THICK 3.3K-J,1/16W-1005REEL		C20003326M101S	4		
	R388	nsp	R,CHIP THICK 10K-J,1/16W-1608REEL	E3, E1C, JP	C20001036M160S	1		
	R389	nsp	R,CHIP THICK 33-J,1/16W-1005REEL		C20003306M101S	68		
	R390,391	nsp	R,CHIP THICK 4.7K-J,1/16W-1005REEL		C20004726M101S	2		
	R392-397	nsp	R,CHIP THICK 0-J,1/16W-1005REEL		C20000006M101S	6		
	R398	nsp	R,CHIP THICK 10K-J,1/16W-1005REEL		C20001036M111S	38		
	CAPACIITORS GROUP							
	C105,106	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	2		
	C107	nsp	C,CERAMIC CHIP HIK COG)15PF-J/50V-1005REEL		D011150167101S	2		
	C108	nsp	C,CERAMIC CHIP HIK COG)18PF-J/50V-1005REEL		D011180167101S	1		
	C109	nsp	C,CERAMIC CHIP HIK Y5V)0.22UF-Z/10V-1005REEL		D011224592100S	1		
	C110	00D9630325004	C,ELECT CHIP(GE) 100UF-MVG/6.3V,5.3*5.9*5.3 3REEL (Z8156) SY		D050101081650S	4		
	C114-135	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	22		
	C136	nsp	C,CERAMIC CHIP HIK X7R)0.01UF-K/16V-1005REEL		D011103177100S	2		
	C137	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C138	nsp	C,CERAMIC CHIP HIK X7R)0.01UF-K/16V-1005REEL		D011103177100S	2		
	C141	00D9630325004	C,ELECT CHIP(GE) 100UF-MVG/6.3V,5.3*5.9*5.3 3REEL (Z8156) SY		D050101081650S	4		
	C142-157	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	16		
	C162	00D9630325004	C,ELECT CHIP(GE) 100UF-MVG/6.3V,5.3*5.9*5.3 3REEL (Z8156) SY		D050101081650S	4		
	C163-184	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	22		
	C219	00D9630338606	C,ELECT CHIP(GE) 10UF-MVG/16V,3.3*3.7*5.2 REEL (Z8154) SY		D050100083470S	2		
	C220	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C221	nsp	C,CERAMIC CHIP HIK X7R)1000PF-K/50V-1005REEL		D011102177101S	1		
	C222	00D9630338606	C,ELECT CHIP(GE) 10UF-MVG/16V,3.3*3.7*5.2 REEL (Z8154) SY		D050100083470S	2		
	C223	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C224	nsp	C,CERAMIC CHIP T.C C0G)0.068UF-J/50V-3216REEL GRM31C5C1H683JA01L		D010683167300S	1		
	C225	nsp	C,CERAMIC CHIP HIK X7R4700PF-K/50V-2012REEL		D011472777200S	1		
	C226	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C227	00D9630325004	C,ELECT CHIP(GE) 100UF-MVG/6.3V,5.3*5.9*5.3 3REEL (Z8156) SY		D050101081650S	4		
	C228	nsp	C,CERAMIC CHIP HIK COG)15PF-J/50V-1005REEL		D011150167101S	2		
	C229	nsp	C,CERAMIC CHIP HIK COG)12PF-J/50V-1005REEL		D011120167101S	1		
	C230	nsp	C,CERAMIC CHIP HIK X5R)10UF-K/16V-2012REEL GRM21BR61C106KE15L		D011106573200S	3		
	C233-252	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	20		
	C253	nsp	C,CERAMIC CHIP HIK X5R)10UF-K/16V-2012REEL GRM21BR61C106KE15L		D011106573200S	3		
	C256-267	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	12		
	C268	nsp	C,CERAMIC CHIP HIK X5R)10UF-K/16V-2012REEL GRM21BR61C106KE15L		D011106573200S	3		
	C270-279	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	10		
	C302	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	7		
	C303	nsp	C,ELECT CHIP(GE) 100uF-M/25V,8.3*8.3*6.3(H63) BXJ SMD		D050101084690S	1		
	C304	nsp	C,CERAMIC CHIP HIK X7R)1UF-K/25V-2012REEL		D011105774201S	1		
	C305	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	7		
	C306	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C308	nsp	C,CERAMIC CHIP T.C COG330PF-J/50V-1608REEL		D010331167160S	1		
	C309	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	7		
	C310,311	nsp	C,CERAMIC CHIP HIK X5R)10UF-K/25V-3216REEL C3216X5R1E106K		D011106574302S	2		
	C312	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	3		
	C313	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	7		
	C314	nsp	C,CERAMIC CHIP T.C COG)10PF-J/50V-1608REEL		D010100167161S	1		
	C315	nsp	C,CERAMIC CHIP HIK X7R6800PF-K/50V-1608REEL		D011682777160S	1		
	C316	nsp	C,CERAMIC CHIP HIK X5R)47UF-K/10V 3216REEL GRM31CR61A476KE15L		D011476572303S	1		
	C318	nsp	C,CERAMIC CHIP HIK X7R)1000PF-K/50V-1608REEL		D011102777160S	1		
	C319-321	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	3		
	C322,323	nsp	C,CERAMIC CHIP HIK X7R)4.7UF-K/6.3V-1608REEL		D011475571160S	2		
	C324,325	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	2		
	C326,327	nsp	C,CERAMIC CHIP HIK X7R)1UF-K/16V-1608REEL		D011105173161S	2		
	C328	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C329	nsp	C,CERAMIC CHIP HIK X5R)10UF-K/25V-3216REEL C3216X5R1E106K		D011106574302S	4		
	C330	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C331	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	7		
	C332	00D2570505910	C,CERAMIC CHIP T.C CH)1500PF-J/50V-1608REEL GRM1882C1H152JA01D		D010152167165S	1		
	C333	nsp	C,CERAMIC CHIP HIK X5R)10UF-K/25V-3216REEL C3216X5R1E106K		D011106574302S	4		
	C334	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C335	nsp	C,CERAMIC CHIP HIK X7R)1UF-K/16V-1608REEL		D011105173161S	3		
	C336-338	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	3		
	C339	nsp	C,CERAMIC CHIP HIK X5R)10UF-K/6.3V-1608REEL		D011106571160S	1		
	C340-344	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	5		
	C345,346	nsp	C,CERAMIC CHIP HIK COG)10PF-J/50V-1005REEL		D011100167101S	2		
	C347	nsp	C,CERAMIC CHIP HIK X7R0.1UF-K/50V-2012REEL		D011104777200S	2		
	C348	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C349	nsp	C,CERAMIC CHIP HIK X7R0.1UF-K/50V-2012REEL		D011104777200S	2		
	C350,351	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	2		
	C352	nsp	C,CERAMIC CHIP HIK X5R)2.2UF-K/16V-1608REEL GRM188R61C225KE15D		D011225573160S	1		
	C353	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C354	nsp	C,CERAMIC CHIP HIK X7R)4.7UF-K/6.3V-1608REEL		D011475571160S	3		
	C355	nsp	C,CERAMIC CHIP HIK COG)100PF-J/50V-1005REEL		D011101167101S	2		
	C356	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/16V-1005REEL		D011104177101S	130		
	C357	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	7		
	C358	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	3		
	C359	nsp	C,CERAMIC CHIP HIK COG)100PF-J/50V-1005REEL		D011101167101S	2		
	C360	nsp	C,CERAMIC CHIP HIK X7R)0.1UF-K/50V-1608REEL		D011104577160S	7		
	C361	nsp	C,CERAMIC CHIP T.C X7R)0.01UF-K/50V-1608REEL		D010103777160S	3		
	C362	nsp	C,CERAMIC CHIP T.C COG100PF-J/50V-1608REEL		D010101167160S	1		
	C364	963134502150S	C,ELECT GE 85C 330UF-M/6.3V,8*5-5RE SRE SY		D040331081060S	1		
	OTHER PARTS GROUP							
	CP301	nsp	CN.WAFER 2.5MM C12542-H060-38G-3060 38P BtoB HEADER P=2.54MM		L1021254238605	1		
	BKT201	nsp	BRACKET AVR133(HARMAN) BURRING HOLE SPTE 0.8t/SCREW		4010210196100S	1		
	FPC202	nsp	CN.FPC 1.0MM 1.0-15S-6PWB 6P HOR SMT TOP		L130100150640S	1		
	FPC302	nsp	CN.FPC 1.0MM 1.0-15S-7PWB 7P HOR SMT TOP		L130100150740S	1		
	FPC303	nsp	CN.FPC 1.0MM 1.0-16-19PB-2 19P ST SMT (JSY)		L130100161930S	1		
	JACK101	963643102790D	CN,PLUG CONTACT USB B TYPE CONNECTOR SDA-67068-8010		G480670680010S	1	*	
	JACK301	963646100610D	JACK,D6.5 D10170010S		G4020410300005	1	*	
	L101-105	nsp	COIL,BEAD BLM21PG221SN1 220ohm 2A SMD2012 TYPE		D340201212210S	5		
	L204-206	nsp	COIL,BEAD BLM21PG221SN1 220ohm 2A SMD2012 TYPE		D340201212210S	3		
	L207-210	nsp	COIL,BEAD CBW160808U121T 120ohm SMD1608 TYPE		D340160811210S	4		
	L301,302	nsp	COIL,BEAD BLM21PG221SN1 220ohm 2A SMD2012 TYPE		D340201212210S	2		
	L303	nsp	COIL,INDUCTOR NRS5020T100MMGJ 10UH 5*5*2 POWER INDUCTOR		D310502061000S	1		

	REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
	L304-306	nsp	COIL,BEAD BLM21PG221SN1 220ohm 2A SMD2012 TYPE		D340201212210S	3		
	L307	nsp	COIL,INDUCTOR NRS4018T330MDGJ 33UH 4*4*1.8 POWER INDUCTOR		D310401863300S	1		
	L308-312	nsp	COIL,BEAD BLM21PG221SN1 220ohm 2A SMD2012 TYPE		D340201212210S	5		
	L322-331	nsp	COIL,BEAD CBW160808U121T 120ohm SMD1608 TYPE		D340160811210S	10		
	X101	963141101110D	CRYSTAL CHIP 26.0000MHz CL=12PF XS-3225 SMD3225 ECEC		E80526R000090S	1	*	
	X203	963141100940S	CRYSTAL CHIP 24.576MHz CL=10PF XS-3225 SMD3225 ECEC		E80524R576190S	1		
	X301	963141101120D	CRYSTAL CHIP 12.000MHz CL=8PF XS-3225 SMD3225 ECEC		E80512R000090S	1	*	

EXPLODED

※Parts indicated by "nsp"on this table cannot be supplied.

※The parts listed b NOTE:The symbols in the column Remarks indicate the following destinations.

E3 : U.S.A. & Canada model E2 : Europe model E1C : China model E1 : Asia model JP : Japan model

	REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
	P1	963639101310D	PWB ASSY MAIN (with DC TO DC CONVERTER ASSY)		7025MU1302010	1	*	
	P2	963639101320D	PWB ASSY DSP (E2)	E2	7025MU1302031	1	*	
	P2	963639101300D	PWB ASSY DSP (E3, JP, E1C)	E3, JP, E1C	7025MU1302011	1	*	
	P3	nsp	PWB ASSY FRONT		7025MU1302012	1		
	P4	|	PWB ASSY POWER_KEY		7028074352010	1		
	P5	|	PWB ASSY H/P		7028074353010	1		
	P6	|	PWB ASSY TOUCH_KEY		7028074354010	1		
	P7	└	PWB ASSY TOUCH_LED		7028074355010	1		
	1	963416101270D	WINDOW DISPLAY		5077213602000S	1	*	
	2	nsp	PANEL INNERE	E2, E1C, JP	3060216101000S	1		
	2	nsp	PANEL INNERE	E3	3060216101100S	1		
	3	963412101170D	KNOB ASSY VOLUME		5088212848000S	1	*	
	4	963411103110D	BUTTON ASSY POWER		5098215358000S	1	*	
	5	nsp	SHEET OLDED		1210212532000S	1		
	6	nsp	PLATE USB		4470212206000S	1		
	7	963401100970D	COVER BOTTOM	E2, E1C, JP	4317216051000S	1	*	2
	7	963401100980D	COVER BOTTOM	E3	4317216051100S	1	*	2
	9	963456100100D	TAPE WEIGHT		1220211659000S	1	*	2
	10	963446100810D	PLATE WEIGHT_BOTTOM		4470212886100S	1	*	2
	8	963401100910D	COVER CONCAVE	E2, E1C, JP	4310216021000S	2	*	2
	8	963401100920D	COVER CONCAVE	E3	4310216021100S	2	*	2
	12	963403100940D	COVER TOP	E2, E1C, JP	4317216041000S	1	*	2
	12	963403100960D	COVER TOP	E3	4317216041100S	1	*	2
	9	963456100100D	TAPE WEIGHT		1220211659000S	1	*	2
	11	963446100820D	PLATE WEIGHT_TOP		4470212886000S	1	*	2
	13	42141002500AD	BADGE DENON		5630210866000S	1	*	2
	20	963456100110D	LABEL HOOK		5507000015590S	4	*	2
	14	nsp	CASE MAIN_B		3030211406000S	1		
	15	nsp	SUPPORTER PCB		4070212291000S	2		
	16	nsp	CHASSIS BACK	E2	3207214846000S	1		
	16	nsp	CHASSIS BACK	E3	3207214846030S	1		
	16	nsp	CHASSIS BACK	E1C	3207214846020S	1		
	16	nsp	CHASSIS BACK	JP	3207214846010S	1		
	17	963406101480D	COVER REAR	E2, E1C, JP	4317216031000S	1	*	
	17	963406101490D	COVER REAR	E3	4317216031100S	1	*	
	18	nsp	GASCKET EMI		4400210459000S	3		
	19	nsp	SPRING KNOB		3720210276000S	1		
	★	963606502420D	FFC CABLE,1.0MM 1.0*19*100*A(4/4/8/8)*(0.035*0.65)		N711191012480S	1	*	
	SCREWS							
	S1	nsp	SCREW,TAP TITE +2S 3*8 B-TYPE ZNW/BH		B020030081B10S	23		
	S2	nsp	SCREW +2S 3*8 ZnY WASHER PI12		1500001456010S	1		
	S3	nsp	SCREW,TAP TITE AVR3300(E3)(DENON) +2S 3*10 B-TYPE(DOT) BK/BH		B020030103B11S	12		
	S4	nsp	SCREW,TAP TITE +2S 3*8 B-TYPE BK/FH		B020030083F10S	6		

When ordering the COVER BOTTOM, also order the parts 9 and 10 below.
COVER BOTTOMを注文の場合は、以下の**Ref-No.9,10**を合わせて注文して下さい。

For how to assemble these parts, refer to the exploded view.
組み立て方は、分解図 を参照して下さい。

When ordering the COVER TOP, also order the parts 9,11,13 and 20.
COVER TOPを注文の場合は、**Ref-No.9,11,13,20**を合わせて注文して下さい。

For how to assemble these parts, refer to the exploded view.
組み立て方は、分解図 を参照して下さい。

PACKING

※Parts indicated by "nsp"on this table cannot be supplied.

※The parts listed b NOTE:The symbols in the column Remarks indicate the following destinations.

E3 : U.S.A. & Canada model E2 : Europe model E1C : China model E1 : Asia model JP : Japan model

	REF No.	Part No.	Part Name	Remarks		Q'ty	New	Ver
	2	963533102110D	CUSHION SNOW F/R		62302135940005	2	*	
	3	963533102100D	CUSHION SNOW TOP		62302136040005	1	*	
	4	963407100400D	STAND VERTICAL		41472101610005	1	*	
	5	963425100050D	CUSHION STAND		40502148950005	1	*	
	6	nsp	TAPE PACKING		12202107720005	1.6	*	
	7	963531104100D	BOX GIFT		60072125700005	1	*	
	8	963407100410D	CUSHION FOOT		40502148890005	4	*	
	9	nsp	TAPE COLOR(BLUE)		12202114920005	4		
	10	nsp	PE, SHEET(690*600)		63272100190005	1	*	
	11	nsp	PLOY BAG(260*390)		63370002400105	1	*	
	12	nsp	PLOY BAG(270*70)		63302106420005	1	*	
	13	nsp	PLOY BAG(60*55)		63302105320005	1	*	
	14	nsp	SHEET BAG(220*160)		63302106790005	1	*	
	17	nsp	POP SHEET		52270000030405	1	*	
	18	nsp	CLEAR LABEL		55070000156005	1	*	
	19	nsp	CONTROL LABEL	E2	55070000152405	1	*	
	19	nsp	CONTROL LABEL	E1C	55070000152205	1	*	
	19	nsp	CONTROL LABEL	JP	55070000152305	1	*	
	19	nsp	CONTROL LABEL	E3	55070000154405	1	*	
	20	nsp	COLOR LABEL		55070000046005	2		
	21	54111113400AD	GETTING STARTED (E2)	E2	57070000087805	1	*	
	21	54111113600AD	GETTING STARTED (E1C)	E1C	57070000087605	1	*	
	21	54111113500AD	GETTING STARTED (JP)	JP	57070000087705	1	*	
	21	54111116100AD	GETTING STARTED (E3)	E3	57070000090705	1	*	
	22	54111113300AD	INST.MANUAL(JP)	JP	57070000088005	1	*	
	23	nsp	WARRANTY CARD	E1C	57270000004025	1		
	23	nsp	WARRANTY CARD	JP	57270000020035	1		
	24	nsp	PASS CARD	E1C	57770000000205	1		
	25	nsp	S.S LIST CARD	JP	577720004001fS	1		
	26	nsp	2P RCA CABLE		L0631022001805	1		
!	27	963693100290D	DC ADAPTER		M0801801500205	1	*	
!	29	963693100310D	ADAPTER CONVERTER	E2	M0851801201305	1	*	
!	28	963693100320D	ADAPTER CONVERTER (for UK)	E2	M0851801201105	1	*	
!	28	963693100380D	ADAPTER CONVERTER	E1C	M0851801201805	1	*	
!	28	963693100300D	ADAPTER CONVERTER	JP	M0851801201205	1	*	
!	28	963693100300D	ADAPTER CONVERTER	E3	M0851801201205	1	*	
	30	35201029700AD	CD MANUAL E2	E2	65170000016005	1	*	
	30	35201029800AD	CD MANUAL E1C	E1C	65170000017905	1	*	
	30	35201032300AD	CD MANUAL E3	E3	65170000018005	1	*	2
	31	nsp	SAFETY INSTRUCTIONS (E2)	E2	52270000030505	1	*	
	31	nsp	SAFETY INSTRUCTIONS (E1C)	E1C	52270000030605	1	*	
	31	nsp	SAFETY INSTRUCTIONS (JP)	JP	52270000030705	1	*	
	31	nsp	SAFETY INSTRUCTIONS (E2)	E3	52270000030805	1	*	